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ABSTRACT

This guide is based on the latest federal regulations and meal pattern requirements for the National School Lunch and Breakfast Programs. It considers current food production and marketing techniques, packaging methods, grading standards, and changing food habits in the American population. The guide gives average yield information on over 600 food items. This information is essential in calculating quantities of food to purchase in order to meet the requirements for the components of the meal patterns. Yields are influenced by: (1) quality and condition of the food; (2) storage conditions and handling; (3) equipment used in preparation; (4) cooking method and time; (5) the form in which the food is to be served; and (6) serving utensils and portion control. Charts are included presenting the complete meal pattern with amounts of food for girls and boys of various ages and grades, school breakfast program meal requirements and recommendations; patterns for breakfast, lunch or supper and snacks, and meal patterns for a summer food service program. (JD)

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Food Buying Guide for Child Nutrition Programs

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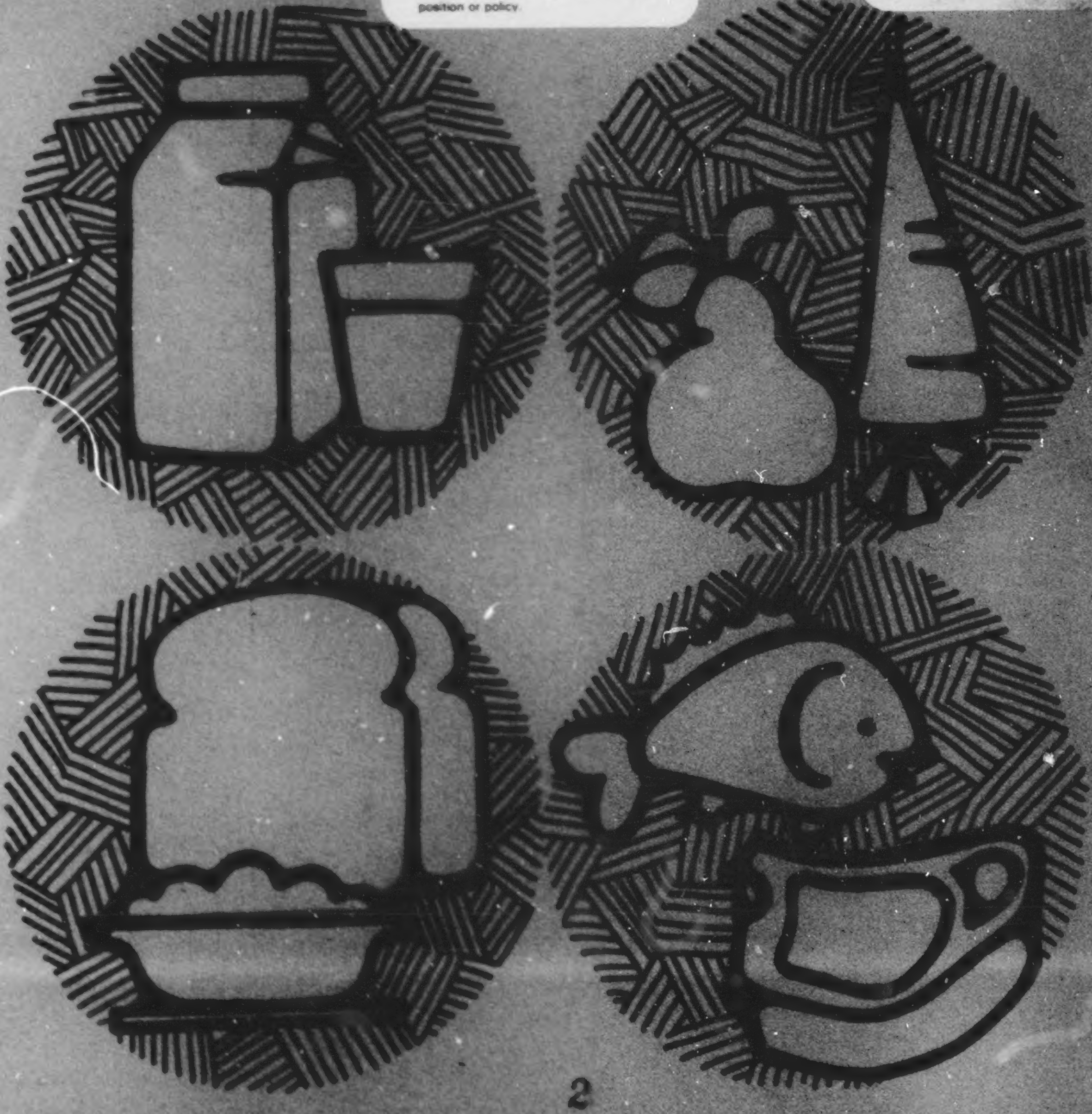

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Introduction

The purpose of this publication is to help ensure that meals served under the National School Lunch and Breakfast Programs meet program requirements. It is the principal tool to determine the contribution foods make toward the meal requirements whether foods are produced onsite or purchased commercially. It will help food service personnel in all Child Nutrition Programs and purchasing agents to buy the right amount of food and buy it most economically. For information related to writing food specifications and sources for obtaining food prices, refer to FNS-181—*Food Price Sources for School Food Personnel*. This publication is also appropriate for use by food service personnel in the Child Care Program and the Summer Food Service Program.

This guide is based on the latest Federal regulations and meal pattern requirements. It takes into account current food production and marketing techniques, packaging methods, and grading standards. It also reflects changing food habits in the American population by including, for example, more raw vegetables and more ethnic foods.

The guide gives average yield information on over 600 food items. This information is essential in calculating quantities of food to purchase in order to meet the requirements for the components of the meal patterns. Yields will be influenced by:

- the quality and condition of the food you buy
- storage conditions and handling
- the equipment used in preparation
- the cooking method and time
- the form in which you serve the food (for example, mashed, fried, or baked potatoes)
- serving utensils and portion control.

The data in this guide are based on laboratory testing by the Human Nutrition Information Service (formerly Human Nutrition, within the Science and Education Administration), U.S. Department of Agriculture (USDA). They are also consistent with the standards of the Food Safety and Inspection Service, USDA; the National Marine Fisheries Service, U.S. Department of Commerce; and the Food and Drug Administration, U.S. Department of Health and Human Services. This *Food Buying Guide for Child Nutrition Programs* will be periodically reviewed and individual pages or entire sections will be reissued to keep the publication current.

Meal Patterns

Chart 1 presents the complete meal pattern for the National School Lunch Program with the amounts of food for boys and girls of various ages and grades. USDA recommends, but does not require, that portions be adjusted by age group to better meet the food and nutritional needs of children according to their ages. The amount of food listed under Groups I-IV for the National School Lunch Program indicates minimum requirements for the age and grade groups specified. If you do not adjust portions, it is important that you assure that the oldest age group served receives the minimum amount for that age group.

The School Breakfast Program meal requirements and recommendations are shown in chart 2. For guidance in using both of these patterns for school meals, refer to PA-1260, *Menu Planning Guide for School Food Service.*

Chart 3 presents the meal patterns for breakfast, lunch or supper, and snacks in the Child Care Food Program. For guidance in using these patterns refer to FNS-64, *A Planning Guide for Child Care Centers.*

The meal patterns for the Summer Food Service Program are presented in chart 4. Guidance for sponsors who wish to prepare food onsite may be found in FNS-207, *Sponsor Meal Preparation Handbook for the Summer Food Service Program for Children.*

CHART 1

SCHOOL LUNCH PATTERNS FOR VARIOUS AGE/GRADE GROUPS

U.S. Department of Agriculture, National School Lunch Program

USDA recommends, but does not require, that you adjust portions by age/grade group to better meet the food and nutritional needs of children according to their ages. If you adjust portions, Groups I-IV are minimum requirements for the age/grade groups specified. If you do *not* adjust portions, the Group IV portions are the portions to serve all children.

COMPONENTS		MINIMUM QUANTITIES				RECOMMENDED QUANTITIES[2]	
		Preschool		Grades K-3	Grades 4-12[1]	Grades 7-12	
		ages 1-2 (Group I)	ages 3-4 (Group II)	ages 5-8 (Group III)	age 9 & over (Group IV)	age 12 & over (Group V)	SPECIFIC REQUIREMENTS
MEAT OR MEAT ALTERNATE	**A serving of one of the following or a combination to give an equivalent quantity:**						• Must be served in the main dish or the main dish and one other menu item. • **Vegetable protein products, cheese alternate** products, and enriched macaroni with fortified protein may be used to meet part of the meat/meat alternate requirement. Fact sheets on each of these alternate foods give detailed instructions for use.
	Lean meat, poultry, or fish (edible portion as served)	1 oz	1½ oz	1½ oz	2 oz	3 oz	
	Cheese	1 oz	1½ oz	1½ oz	2 oz	3 oz	
	Large egg(s)	½	¾	¾	1	1½	
	Cooked dry beans or peas	¼ cup	⅜ cup	⅜ cup	½ cup	¾ cup	
	Peanut butter	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp	
VEGETABLE AND/OR FRUIT	**Two or more servings of vegetable or fruit or both to total**	½ cup	½ cup	½ cup	¾ cup	¾ cup	• No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice. • Cooked dry beans or peas may be used as a meat alternate or as a vegetable but not as both in the same meal.
BREAD OR BREAD ALTERNATE	**Servings of bread or bread alternate** A serving is • 1 slice of whole-grain or enriched bread • A whole-grain or enriched biscuit, roll, muffin, etc • ½ cup of cooked whole-grain or enriched rice, macaroni, noodles, whole-grain or enriched pasta products, or other cereal grains such as bulgur or corn grits • A combination of any of the above	5 per week	8 per week	8 per week	8 per week	10 per week	• At least ½ serving of bread or an equivalent quantity of bread alternate for Group I, and 1 serving for Groups II-V, must be served daily. • Enriched macaroni with fortified protein may be used as a meat alternate or as a bread alternate but not as both in the same meal. NOTE: *Food Buying Guide for Child Nutrition Programs*, PA-1331 (1983) provides the information for the minimum weight of a serving.
MILK	**A serving of fluid milk**	¾ cup (6 fl oz)	¾ cup (6 fl oz)	½ pint (8 fl oz)	½ pint (8 fl oz)	½ pint (8 fl oz)	At least one of the following forms of milk must be offered: • Unflavored lowfat milk • Unflavored skim milk • Unflavored buttermilk NOTE: This requirement does not prohibit offering other milks, such as whole milk or flavored milk, along with one or more of the above.

[1] Group IV is highlighted because it is the one meal pattern which will satisfy all requirements if no portion size adjustments are made.

[2] Group V specifies recommended, not required, quantities for students 12 years and older. These students may request smaller portions, but not smaller than those specified in Group IV.

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CHART 2. School Breakfast Pattern

Components	Minimum Required Quantities
Fruit or Vegetable	
Fruit or Vegetable or Fruit Juice or Vegetable Juice	1/2 cup
Bread or Bread Alternate	
One of the following or combination to give an equivalent quantity	1 serving
• **One slice** of whole-grain or enriched bread • A serving of biscuits, rolls, muffins, etc., whole-grain or enriched • A serving (3/4 cup or 1 ounce, whichever is less) of whole-grain or enriched or fortified cereal	
Fluid Milk	
As a beverage or on cereal or both	1/2 pint

Recommendations

To help meet children's nutritional needs, breakfast should also contain as often as possible:
Meat or meat alternate—a 1-ounce serving (edible portion as served) of meat, poultry, or fish; or 1 ounce of cheese; or 1 egg; or 2 tablespoons of peanut butter; or an equivalent amount of any combination of these foods.

Also, plan to include:
- Vitamin C foods frequently.
- Foods for iron each day.

See the *Menu Planning Guide for School Food Service*, PA 1260, for lists of these foods.

Chart 3. CHILD CARE FOOD PROGRAM

This chart lists the amounts and types of foods to be served to children who are 1 year old and older.

FOODS FOR CHILDREN AGES 1 TO 12	Ages 1-3	Ages 3-6	Ages 6-12
BREAKFAST			
Milk*	½ cup	¾ cup	1 cup
Juice or Fruit or Vegetable	¼ cup	½ cup	½ cup
Bread or Bread Alternate	½ slice**	½ slice**	1 slice**
including cereal, cold dry	¼ cup or 1/3 ounce	1/3 cup or ½ ounce	¾ cup or 1 ounce
or cereal, hot cooked	¼ cup	¼ cup	½ cup
SNACK (Supplement)			
Select 2 out of the 4 components			
Milk*	½ cup	½ cup	1 cup
Juice or Fruit or Vegetable	½ cup	½ cup	¾ cup
Meat or Meat Alternate	½ ounce	½ ounce	1 ounce
Bread or Bread Alternate	½ slice**	½ slice**	1 slice**
including cereal, cold dry	¼ cup or 1/3 ounce	1/3 cup or ½ ounce	¾ cup or 1 ounce
or cereal, hot cooked	¼ cup	¼ cup	½ cup
LUNCH or SUPPER			
Milk*	½ cup	¾ cup	1 cup
Meat or Poultry or Fish	1 ounce	1½ ounces	2 ounces
or egg	1	1	1
or cheese	1 ounce	1½ ounces	2 ounces
or cooked dry beans or peas	¼ cup	3/8 cup	½ cup
or peanut butter	2 tablespoons	3 tablespoons	4 tablespoons
Vegetables and/or Fruits (2 or more to total)	¼ cup	½ cup	¾ cup
Bread or Bread Alternate	½ slice**	½ slice**	1 slice**

*Includes whole milk, lowfat milk, skim milk, cultured buttermilk, or flavored milk made from these types of fluid milk which meet State or local standards.

** or an equivalent serving of bread alternate such as a roll, biscuit, muffin, cooked enriched or whole-grain rice, macaroni, noodles, or other pasta products.

Chart 4. SUMMER FOOD SERVICE PROGRAM FOR CHILDREN

FOODS FOR CHILDREN	Ages 18 and under
BREAKFAST	
Milk*	1 cup (½ pint)
Juice or Fruit or Vegetable	½ cup
Bread or Bread Alternate	1 slice**
including cereal, cold dry	¾ cup or 1 ounce
or cereal, hot cooked	½ cup
SNACK (Supplement)	
Select 2 out of the 4 components	
Milk*	1 cup (½ pint)
Juice or Fruit or Vegetable	¾ cup
Meat or Meat Alternate	1 ounce
Bread or Bread Alternate	1 slice**
including cereal, cold dry	¾ cup or 1 ounce
or cereal, hot cooked	½ cup
LUNCH or SUPPER	
Milk*	1 cup (½ pint)
Meat or Poultry or Fish	2 ounces
or egg	1
or cheese	2 ounces
or cooked dry beans or peas	½ cup
or peanut butter	4 tablespoons
Vegetables and/or Fruits (2 or more to total)	¾ cup
Bread or Bread Alternate	1 slice**

*Includes whole milk, lowfat milk, skim milk, cultured buttermilk, or flavored milk made from these types of fluid milk which meet State or local standards

** or an equivalent serving of bread alternate such as a roll, biscuit, muffin, cooked enriched or whole-grain rice, macaroni, noodles, or other pasta products.

Table 1
Abbreviations and Symbols

AP	as purchased	**g**	gram	**Tbsp**	tablespoon
EP	edible portion	**kg**	kilogram	**mL**	milliliter
cyl	cylinder	**fl oz**	fluid ounce	**L**	liter
pkg	package	**pt**	pint	**incl**	including
wt	weight	**qt**	quart	**excl**	excluding
lb	pound	**gal**	gallon		
oz	ounce	**tsp**	teaspoon		

Chart 5. Common Can and Jar Sizes

Can Size (industry term)[1]	Average net weight of fluid measure per can[2]		Average volume per can		Cans per case	Principal products
	Customary	Metric	Cups	Liters	Number	
No. 10	6 lb (96 oz) to 7 lb 5 oz (117 oz)	2.72 kg to 3.31 kg	12 to 13-2/3	2.84 to 3.24	6	**Institutional size:** Fruits, vegetables, some other foods.
No. 3 Cyl	51 oz (3 lb 3 oz) or 46 fl oz (1 qt 14 fl oz)	1.44 kg or 1.36 L	5-3/4	1.36	12	Condensed soups, some vegetables, meat and poultry products, fruit and vegetable juices.
No. 2-1/2	26 oz (1 lb 10 oz) to 30 oz (1 lb 14 oz)	737 g to 850 g	3-1/2	0.83	24	**Family size:** Fruits, some vegetables.
No. 2 Cyl	24 fl oz	709 mL	3	0.71	24	Juices, soups.
No. 2	20 oz (1 lb 4 oz) or 18 fl oz (1 pt 2 fl oz)	567 g or 532 mL	2-1/2	0.59	24	Juices, ready-to-serve soups, some fruits.
No. 303	16 oz (1 lb) to 17 oz (1 lb 1 oz)	453 g to 481 g	2	0.47	24 or 36	**Small Cans:** Fruits and vegetables, some meat and poultry products, ready-to-serve soups.
No. 300	14 oz to 16 oz (1 lb)	396 g to 453 g	1-3/4	0.41	24	Some fruits and meat products.
No. 2 (vacuum)	12 oz	340 g	1-1/2	0.36	24	Principally vacuum pack corn.
No. 1 (picnic)	10-1/2 oz to 12 oz	297 g to 340 g	1-1/4	0.30	48	Condensed soups, some fruits, vegetables, meat, fish.
8 oz	8 oz	226 g	1	0.24	48 or 72	Ready-to-serve soups, fruits, vegetables.

[1] Can sizes are industry terms and do not necessarily appear on the label.

[2] The net weight on can or jar labels differs according to the density of the contents. For example: A No. 10 can of sauerkraut weighs 6 lb 3 oz (2.81 kg); a No. 10 can of cranberry sauce weighs 7 lb 5 oz (3.32 kg). Meats, fish, and shellfish are known and sold by weight of contents.

Table 2
Guide for Substituting Cans

	CAN SIZE YOU HAVE	No. 10	No. 3 Cyl	No. 2-1/2	No. 2	No. 303
CAN	**No. 10**	1.0	2.1	3.7	5.3	6.5
SIZE	**No. 3 Cyl**	0.5	1.0	1.8	2.6	3.1
IN	**No. 2-1/2**	0.3	0.6	1.0	1.5	1.8
YIELD	**No. 2**	0.2	0.4	0.7	1.0	1.3
TABLE	**No. 303**	0.2	0.3	0.6	0.8	1.0

To use table, find the column with the can size you have. Then, find the row with the can size given in the yield table. The number where the column and row intersect is the required number of cans of the size you have. As an example, you can use 1.5 No. 2 cans in place of each No. 2-1/2 can (see circled number in chart).

Metric Equivalents

Since the appointment of the U.S. Metric Board of 1978 by the President of the United States, metric quantities have been increasingly used for food processing, packaging, and in specification writing. Therefore, the following table shows metric equivalents. This should help you become familiar with the relationship between metric and customary units.

Table 3

Weight		**Volume**	
Customary	Metric	Customary	Metric
1 ounce	28 grams (g)	**1 cup (8 fl oz)**	237 milliliters (mL)
4 ounces	113g	**1 quart**	946 mL
8 ounces	227g	**1.05 quarts**	1 liter (L)
1 pound (16 oz)	454g		
2 pounds	907g		
2.2 pounds	1 kilogram (kg)		

Table 4
Decimal Weight Equivalents

Ounces		Pounds	Ounces		Pounds
1	=	0.06	**16**	=	1.00
2	=	.12	**32**	=	2.00
3	=	.19	**35**	=	2.19
4	=	.25	**48**	=	3.00
5	=	.31	**64**	=	4.00
6	=	.38	**71**	=	4.44
7	=	.44	**80**	=	5.00
8	=	.50	**96**	=	6.00
9	=	.56	**106**	=	6.63
10	=	.62	**112**	=	7.00
11	=	.69	**128**	=	8.00
12	=	.75	**141**	=	8.82
13	=	.81	**144**	=	9.00
14	=	.88	**160**	=	10.00
15	=	.94			

Table 5
Volume Equivalents

1 tablespoon = 3 teaspoons
1/8 cup = 2 tablespoons
1/8 cup = 1 fluid ounce
1/4 cup = 4 tablespoons
1/3 cup = 5-1/3 tablespoons
3/8 cup = 6 tablespoons
1/2 cup = 8 tablespoons
5/8 cup = 10 tablespoons
2/3 cup = 10-2/3 tablespoons
3/4 cup = 12 tablespoons
7/8 cup = 14 tablespoons
1 cup = 16 tablespoons
1/2 pint = 1 cup
1/2 pint = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 peck = 8 quarts (dry)
1 bushel = 4 pecks

Table 6
Decimal Equivalents for Fractions of a Unit

Number of units (ounces, cups, tablespoons, or whatever)[1]	+0 unit	+1/4 unit	+1/3 unit	+1/2 unit	+2/3 unit	+3/4 unit
0	——	0.02	0.02	0.03	0.04	0.05
1	0.06	0.08	0.08	0.09	.10	.11
2	.12	.14	.15	.16	.17	.17
3	.19	.20	.21	.22	.23	.23
4	.25	.27	.27	.28	.29	.30
5	.31	.33	.33	.34	.35	.36
6	.38	.39	.40	.41	.42	.42
7	.44	.45	.46	.47	.48	.48
8	.50	.52	.52	.53	.54	.55
9	.56	.58	.58	.59	.60	.61
10	.62	.64	.65	.66	.67	.67
11	.69	.70	.71	.72	.73	.73
12	.75	.77	.77	.78	.79	.80
13	.81	.83	.83	.84	.85	.86
14	.88	.89	.90	.91	.92	.92
15	.94	.95	.96	.97	.98	.98

[1] Read whole units at the side and the fraction or part of the unit at the top of the table. If the units are ounces, the decimal equivalents in the table are parts of 1 pound. If the units are tablespoons, the decimal equivalents are parts of 1 cup. If the units are cups, the decimal equivalents are parts of 1 gallon.

Examples:

Ounces to pounds To convert 10-1/2 ounces to the corresponding decimal equivalent of a pound, find 10 in the first column. Follow this line across to the column headed "+ 1/2 unit" which shows that 10-1/2 ounces is equal to .66 pound.

Pounds to ounces To convert 0.53 pound to ounces, find 0.53 in the body of the table. Read whole ounces from the left-most number of the same horizontal line, i.e., 8. Next, read the fraction of an ounce from the top number of the column in which 0.53 was found, i.e., 1/2. Thus, 0.53 pound equals 8-1/2 ounces.

Measures for Portion Control

Scoops or dishers, ladles, and serving spoons of standard sizes are fairly dependable measures for portioning and serving food quickly. To assure that you get your expected yield, you must take care in portioning.

Scoops or Dishers

You might use scoops or dishers for portioning such foods as drop cookies, muffins, meat patties, and some vegetables and salads.

The number on the scoop shows the number of scoopfuls to make 1 quart (946 milliliters). The following table shows the approximate measure of each scoop or disher in cups, tablespoons, and teaspoons.

Scoop or disher number	Level measure
6	2/3 cup
8	1/2 cup
10	3/8 cup
12	1/3 cup
16	1/4 cup
20	3-1/5 tablespoons
24	2-2/3 tablespoons
30	2-1/5 tablespoons
40	1-3/5 tablespoons
50	3-4/5 teaspoons
60	1 tablespoon

Ladles

You may use ladles to serve soups, stews, creamed dishes, sauces, gravies, and other similar products.

The following sizes of ladles are most frequently used in serving school lunches.

Number on ladle	Approximate measure
1 ounce	1/8 cup
2 ounce	1/4 cup
4 ounce	1/2 cup
6 ounce	3/4 cup
8 ounce	1 cup
12 ounce	1-1/2 cups

Although the ladles are labeled "ounce," they are actually "fluid ounce" which is a volume, not a weight, measurement.

Serving Spoons

You may use a serving spoon (solid or perforated) instead of a scoop. Since these spoons are not identified by number, measure or weigh the quantity of food from the various sizes of spoons you use to obtain the number of spoonfuls you will need for the required serving size.

Explanation of Yield Data Tables

Foods in this Guide are classified according to the appropriate food component in the meal patterns of the Child Nutrition Programs (see charts 1, 2, 3, and 4). These components are Meat and Meat Alternates, Vegetables and Fruits, Bread and Bread Alternates, and Milk. In addition, there is a section on commonly used "Other Foods."

The yield tables furnish the following information:

Column 1 **Food as purchased:** Individual foods are arranged in alphabetical order by type of food. For instance, ham is listed under PORK, MILD CURED. Within each type, foods are listed according to the forms in which they appear on the market—fresh, canned, frozen, or dehydrated. They are further identified as sliced, shelled, or without bone, for example .

Column 2 **Purchase unit:** The purchase unit for most foods is given as 1 pound. Purchase units for some processed foods also list an institutional pack and, in many cases, a smaller pack, and the net weight of its contents. You can use data on the 1-pound unit of purchase, along with chart 3, Common Can and Jar Sizes, to determine the number of servings for any size purchase unit on the market.

Column 3 **Servings per purchase unit:** This column shows the number of servings or portions of a given size from each pound (or other purchase unit). It is based on average yields from good quality foods prepared in ways that result in a minimum of waste. Numbers are given to one decimal because fractions become significant when figuring large numbers of servings. (It is because of the use of these figures, and not because the figures represent this degree of accuracy, that they have been reported to the nearest 0.01 of a serving for less than 10 servings per purchase unit.) Numbers in this column are sometimes rounded *down* in order to help insure enough food for the desired number of servings.

Column 4 **Serving size or portion:** A serving or portion is described by weight, measure, or number of pieces or slices. Such items as a raw apple or a piece of cooked chicken are given an approximate yield in measure or weight in parentheses. The serving size given in this column for foods specified in the meal patterns can be credited toward meeting the meal pattern requirements. For many fruits and vegetables, both pieces and 1/4-cup servings are included. The serving size of some foods in the Guide will depend on whether they are used in recipes or as separate components.

Column 5 **Purchase units for 100 servings:** This column shows the number of purchase units you need for 100 servings. (The purchase unit listed in Column 2 and the serving size (by weight) listed in Column 4 were used to calculate the number of purchase units in Column 5.) Numbers in this column are generally rounded *up* to help insure enough food for the number of servings.

Column 6 **Additional yield information:** This column gives other information to help you calculate the amount of food you need to prepare. The quantity of ready-to-cook or cooked food you will get from a pound of food as purchased is shown for many foods. The weight or number of cups of drained vegetable or fruit from various can sizes is also given for many processed foods. Instructions follow on calculating the quantity of food to buy to provide the amount of ready-to-cook food called for in a recipe.

NOTE: Always round fractions of a quantity up to the next smallest practical measure, to be sure you prepare enough food.

How to Use Additional Yield Information in Column 6

Use the information in column 6 to determine about how much food is required for a specified amount of ready-to-cook or cooked food listed in a recipe. The information is also useful to determine the correct yields for foods purchased preprepared and ready to cook or use. This is especially useful for fresh fruits and vegetables. Follow this procedure:

1. Refer to the yield information for the food in column 6.

2. Divide the quantity used in the recipe (or purchased) by the quantity of ready-to-cook food obtained from 1 pound as purchased.

3. Multiply this calculated quantity by the servings per purchase unit (from column 3) for the form of the food *as served.*

Example 1:

A recipe for 100 servings of Apple-Peach Crisp specifies 4 pounds of raw, sliced, pared apples. To determine the pounds of fresh apples you need and the number of 1/4-cup servings of fruit (for crediting purposes) you will obtain from the apples, proceed as follows:

1. In column 6, page 60, of yield information for fresh apples, 1 pound AP* (purchased whole) equals 0.78 pound ready-to-cook, pared apples.

2. Divide the number of pounds (4.0) of raw, sliced apples by the quantity of ready-to-cook apples obtained from 1 pound, as purchased (0.78 pound).

$$\frac{\text{4.0 pounds}}{\text{0.78 pound}} = \text{5.13 pounds of apples, rounded up to 5.25 pounds of fresh unpared apples}$$

3. Multiply 5.25 pounds x 6.8 1/4-cup servings per pound = 35.7 1/4-cup servings of fruit (6.8 1/4-cup servings per pound, on page 60, column 3, was used because the food as served is cooked. If the apples were to be used in a fruit salad, 11.4 1/4-cup servings per pound could be used for *raw* pared fruit).

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*As Purchased. See Abbreviations table on page 7 for other abbreviations used in the guide.

Example 2:

You purchase shredded fresh iceberg lettuce, ready to use, in 10-pound bags. To determine the number of 1/4-cup servings (for crediting purposes) that are provided if you are serving the lettuce with dressing or without dressing, proceed as follows:

1. In column 6, page 86 of yield information for head lettuce, 1 pound AP = 0.76 pound ready-to-serve shredded lettuce.

2. Divide the number of pounds (10.0) of preprepared lettuce by the quantity of ready-to-serve lettuce obtained from 1 pound as purchased.

$$\frac{\text{10 pounds}}{\text{0.76 pound}} = \text{13.16 pounds, rounded up to 13.25 pounds.}$$

In column 3, page 86, 1 pound as purchased of fresh lettuce provides 22.2 1/4-cup servings of shredded lettuce without dressing and 13.9 1/4-cup servings of lettuce with dressing.

3. Multiply 13.25 pounds x 22.2 1/4-cup servings per pound = 294.1 1/4-cup servings without dressing and 13.25 pounds x 13.9 1/4-cup servings per pound = 184.1 1/4-cup servings per pound with dressing.

How to Calculate the Quantity of Food You Need

These methods will help you to adjust portion sizes and calculate servings to meet the basic minimum requirements.

Method I. (Use column 3)

1. Estimate the number of servings you need and the serving size for each food. Check the serving size listed in column 4 for the food.
2. Locate the food in the *Food Buying Guide* in the form you intend to serve.
3. Divide the number of servings needed by the number of servings you will get from one purchase unit (pound, can, etc.) to obtain the number of purchase units needed for that food. Round up to ensure enough food.

For Serving Sizes Listed in the *Food Buying Guide*

For serving sizes listed in the *Food Buying Guide:*

Divide the number of people to be served by the number of servings you will get from one purchase unit (pound, can, etc.) to obtain the number of purchase units needed for that food.

Round *up* to ensure enough food.

Example: **Ground Beef, market style**

1. Assume you will need 60 1-1/2-ounce servings of cooked meat.
2. See **Ground Beef, market style** on page 26. The 1-1/2-ounce serving size is listed; therefore, no conversion is needed. From column 3, 1 pound of market style ground beef provides 7.4 1-1/2-ounce servings of cooked lean meat.
3. $\frac{\text{Number of people to be served}}{\text{Servings per purchase unit}} = \frac{60}{7.4} = 8.1$

   Round up to 8.5 pounds. You will need about 8.5 pounds of market style ground beef for 60 1-1/2-ounce servings.

Example: **Cooked Carrot Slices**

1. Assume you will need 195 1/4-cup servings of cooked carrot slices.
2. See **Carrots, fresh - cooked vegetable slices** on page 75. The 1/4-cup serving is listed; therefore, no conversion is needed. From column 3, 1 pound of fresh carrots provides 8.4 1/4-cup servings of cooked sliced carrots.
3. $\frac{\text{Number of people to be served}}{\text{Servings per purchase unit}} = \frac{195}{8.4} = 23.2$

   Round up to 23-1/2 pounds. You will need about 23-1/2 pounds of fresh carrots for 195 1/4-cup servings of cooked carrot slices.

For Serving Sizes Not Listed in the *Food Buying Guide*

For serving sizes not listed in this *Food Buying Guide* or for multiple serving sizes, you first need to convert your desired serving size(s) to those listed in the *Food Buying Guide*. Then divide by the number of servings obtained from one purchase unit to obtain the number of purchase units needed. Round up to ensure enough food.

Meat and Meat Alternates

(a) meat, poultry, fish, cheese:
Multiply the number of people to be served times the serving size(s) (in ounces) to get total ounces needed.

Example: **Beef Roast - Round, Without Bone**

1. Assume you will need 45 1-1/2-ounce servings and 30 2-ounce servings of cooked meat.
2. See **Beef, Fresh or Frozen - Roast, Round, Without Bone** on page 27. From column 3, 1 pound provides 9.7 1-ounce servings.
   Since you need multiple serving sizes, multiply the number of people in each group by the serving size for that group:

   45 servings x 1.5 oz = 67.5 ounces
   30 servings x 2.0 oz = 60 ounces
   127.5 ounces

   You need a total of 127.5 ounces of cooked meat.
3. $$\frac{\text{Number of 1-ounce servings needed}}{\text{Servings per purchase unit}} = \frac{127.5}{9.7} = 13.14$$

   Round up to 13-1/2 pounds meat.

   You will need about 13-1/2 pounds of raw beef round roast, without bone, for the required serving sizes for the 75 people.

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b) Cooked dry beans or peas:
Convert each serving size to the number of 1/4-cup servings. This is done by dividing each serving size by 1/4 and multiplying the result by the number of people to be served to get the number of 1/4-cup servings needed. (You may wish to change the fractions to decimals. Check table 7 on page 20 for decimal equivalents of commonly used fractions.)

For multiple serving sizes, convert each one to 1/4-cup servings and add the results to obtain the total 1/4-cup servings.

Example: **Canned Baked Beans**

1. Assume you will need 120 3/8-cup servings.

2. See **Beans (baked or in sauce)** on page 24. Since a 3/8-cup serving is not listed, convert to 1/4-cup servings. Divide 3/8 by 1/4. (3/8 = .375, 1/4 = .25).

$$\frac{.375}{.25} = 1.5$$

Multiply the factor (1.5) by the number of people to be served (120).
1.5 x 120 = 180 1/4-cup servings.

See column 3 on page 24. One No. 10 can provides 48.9 1/4-cup servings.

3. $$\frac{\text{Number of people to be served}}{\text{Servings per purchase unit}} = \frac{180}{48.9} = 3.68$$

Round up to 3-3/4 No. 10 cans. You will need about 3-3/4 No. 10 cans of baked beans for 120 3/8-cup servings.

NOTE: If No. 303 (16 oz) cans are preferred, use the servings per purchase unit for that size can.

(c) Peanut Butter:
Multiply the number of people to be served times the number of tablespoons for each serving to get the total number of tablespoons needed. Divide this number by 2 to get the total number of 2-tablespoon servings needed.

Divide the number of 2-tablespoon servings needed by the number of servings per purchase unit (column 3) to obtain the number of purchase units needed. Round up.

(d) Eggs:
Multiply the number of people to be served times the serving size(s) (in ounces) to get total ounces needed. Divide this number by 2 to get total number of eggs needed.

Vegetables and Fruits

Convert each serving size to the number of 1/4-cup servings. To do this, divide each serving size by 1/4 and multiply the result by the number of people to be served.

For multiple serving sizes, convert each one to 1/4-cup servings and add the results to obtain the total 1/4-cup servings.

Example: **Regular Crinkle Cut French Fries**

1. Assume you will need 45 1/2-cup servings of french fries.
2. See **Frozen French Fries, Regular Crinkle cut** on page 101. From column 3, 1 pound provides 10.1 1/4-cup servings.
   Since 1/2-cup serving is not listed, convert to 1/4-cup servings.

   Divide 1/2 by 1/4 or $\frac{.5}{.25} = 2$

   Multiply the factor (2) by the number of people to be served (45).

   45 x 2 = 90 1/4-cup servings.

3. Divide the number of people to be served (90) by the servings per purchase unit (10.1) to get the pounds of french fries needed.

   $$\frac{\text{Number of people to be served}}{\text{Servings per purchase unit}} = \frac{90}{10.1} = 8.9 \text{ pounds}$$

   Round up to 9 pounds. You will need about 9 pounds of regular crinkle cut french fries for 45 1/2-cup servings.

Cereals and Cereal Grains

Convert each serving size of cooked cereals or cereal grains to the number of 1/2-cup servings (see **Vegetables and Fruits** for instructions on how to convert) and add the results to get the total number of 1/2-cup servings (1/2-cup of cooked cereal or cereal grains is equivalent to 1 serving of bread).

Cold dry cereals vary greatly in number of serving sizes per pound or package. Check the cereal box for the number and/or size of servings.

Method II (Use column 5)

You may use the purchase unit for 100 servings in column 5 to determine how much of each food you need to prepare a specified number of servings of a given size.

A. Estimate the total number of people in each age group expected to eat that food item.
B. Multiply the number in each group by the serving size to determine the amount you need for that age group.
C. Add together those amounts to determine the total quantity. (Meat is in ounces, vegetables and fruits are in 1/4-cup servings, and bread is in servings or equivalents.)
D. Multiply the total quantity needed by the purchase unit for 100 servings indicated in column 5 and divide the answer by 100.

Example 1. **Assume you need enough meat loaf for 325 people. They are distributed as follows:**

Group	**Number**	**Serving Size**	**Total**
Group III (5 to 8 years)	153	1-1/2 oz	229.5 oz
Group IV (9 and over)	157	2 oz	314.0 oz
Group V (12 and over)	15	3 oz	45.0 oz
		Total	588.5 oz

According to the yield table, you need 9.0 pounds of ground beef (market style) for 100 1-ounce servings of meat loaf.
588.5 × 9.0 ÷ 100 = 52.9 pounds.
Thus, you need 53 (rounded up) pounds market style ground beef for the meat loaf.

Example 2. **Assume you need enough frozen cut green beans to serve the same 325 people.**

Group	**Number**	**Serving Size**	**Total**
Group III (5 to 8 years)	153	1/8 cup	19.125 cups
Group IV (9 and over)	157	1/4 cup	39.25 cups
Group V (12 and over)	15	1/4 cup	3.75 cups
		Total	62.125 cups or 248.50 1/4 cups

According to the yield table, you need 8.7 pounds of frozen cut green beans for 100 1/4-cup servings of cooked beans.
248.50 × 8.7 ÷ 100 = 21.6 pounds.
Thus, you need 21 pounds 12 ounces frozen cut green beans for the lunch.

How to Make Cost Comparisons

You can compare the cost per serving for food purchased in different forms by using the numbers in Column 5.

- **A.** Refer to the information in Column 5 for the item.
- **B.** Divide by 100 by moving the decimal two places to the left.
- **C.** Multiply this number by cost of one purchase unit.
- **D.** Repeat calculations for other market forms and compare.

Example. **Cut green beans**

Form purchased	Cost per pound	Number of purchase units to serve 100	Calculations	Cost per serving
Fresh green beans	$0.30	9.0	.090 × .30	$0.027
Canned cut green beans	.24	14.0	.140 × .24	.034
Frozen cut green beans	.36	8.7	.087 × .36	.031

Thus, based on food costs, fresh green beans are the most economical. Of course, this does not consider your labor cost.

Table 7

DECIMAL EQUIVALENTS OF COMMONLY USED FRACTIONS

1/8 – .125
1/4 – .25
3/8 – .375
1/3 – .33
1/2 – .5
5/8 – .625
2/3 – .67
3/4 – .75
7/8 – .875

MEAT/MEAT ALTERNATES

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U.S. Department of Agriculture

Section 1, Meat and Meat Alternates for the Child Nutrition Programs

Regulations for the Child Nutrition Programs require that a lunch or supper served must contain the amount of meat or meat alternate given in the Meal Pattern Charts on pages 3, 5, 6, and 7. A meat or meat alternate may be served as one of the two components of the snack for the Child Care or Summer Food Service Program. Meat and meat alternates include meat, poultry, fish, cheese, dry beans and peas, eggs, and peanut butter.

Enriched macaroni-type products with fortified protein, textured vegetable protein products, and cheese alternate products may be counted as meeting part of the meat and meat alternate requirement. For detailed information and assistance on the proper use of these products, contact your Food and Nutrition Service Regional Office (FNSRO) and/or State agency.

- The meat or meat alternate for the lunch or supper must be served in the main dish or in the main dish and one other menu item.

This section contains yield data on:

- Servings of fresh and frozen boneless meat, poultry, and fish, given in 1- and 1-1/2 - ounce servings.

- Servings of dry beans and peas, and peanut butter in measures equivalent to 1 and 1-1/2 ounce of meat. Eggs are expressed in 2-ounce equivalents.

- USDA-donated foods that are purchased under special specifications, such as canned and frozen meats. These products, not normally available on the market, are listed as "USDA-donated (special purchase)."

- Standard commercially prepared combination foods, including canned and frozen meat and poultry products which will provide at least 1 ounce of cooked meat or poultry per average-size serving, canned bean soup which contains 1/2 cup beans per cup of soup, and canned pea soup which contains 1/2 cup peas per cup of soup.

Definitions

- A serving of cooked meat is understood to be lean meat without bone.

- A serving of cooked fresh or frozen chicken or turkey includes meat and skin as normally served unless otherwise indicated.

- "USDA-donated (special purchase)" applies only to USDA-donated foods that are not normally available on the market.

- "Market style or market pack" refers to foods available on the market, but the term is used only when necessary to distinguish special-purchase foods from regular market foods.

Yields

Standard commercially prepared combination foods: The yields for commercially prepared combination foods listed under Chicken Products (and Beef or Turkey Products) are based on the minimum meat and poultry requirements for food products that are packed for interstate shipment under Federal Meat and Poultry Inspection. The size serving listed for these products will provide at least an equivalent ounce of cooked meat or poultry.

Breaded fish portions or sticks: Yields are based on raw fish portions or sticks and the amount of fish in the product. "Precooked" seafood is not cooked; only the breading or batter is cooked. The fish is raw. For crediting purposes, the calculations were done on raw fish before the breading or batter was cooked.

Yields of cooked meat and poultry will vary with type, age, fat content, and weight of the animal, and the method, time, and temperature of cooking. The quantities of food to purchase are based on average yields of cooked meat and poultry.

Instructions for Using Yield Data

The yield information is presented in tabular form for easy reference. The columns are numbered 1 through 6 as follows:

Column 1 **Food as purchased:** The individual foods are arranged in alphabetical order by source (for example, ham is listed under PORK, MILD CURED). Other characteristics are given, such as fat content, with or without bone, percent of fish in fish products, and weight of individual pieces of chicken.

Column 2 **Purchase unit:** The purchase unit is generally given as either a pound, a No. 10 can, and, in many cases, a smaller size can.

Column 3 **Servings per purchase unit:** This column shows the number of 1- or 1-1/2 ounce lean meat equivalent servings you will get from each purchase unit. Numbers in this column are sometimes rounded down in order to help insure enough food for the number of servings.

Column 4 **Serving size or portion and contribution to the meal pattern:** The size of a serving is given as 1 or 1-1/2 ounce cooked lean meat or equivalent (1/2 cup or 3/8 cup of cooked beans or peas, 1 or 1-1/2 ounce of cheese, 1 egg (2 ounces), or 2 or 3 tablespoons of peanut butter). Individual servings such as meat patties, frankfurters, chicken pieces, or fish portions are listed by the piece along with the equivalent ounces of lean meat given in parentheses under the portion size. When portion size and contribution to the meal pattern are the same, only one entry is made.

Column 5 **Purchase units for 100 servings:** This column shows the number of purchase units you need for 100 servings. Numbers in this column are generally rounded *up* in order to help insure enough food for the number of servings.

Column 6 **Additional yield information:** This column gives other information to help you calculate the amount of food you need to prepare meals. It shows the amount of cooked meat you will get from 1 pound of meat as purchased.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, DRY					
BEAN SOUP, CANNED					
Condensed (1 part soup to 1 part water)	No. 3 Cyl (54 oz)	23.0	½ cup reconstituted (¼ cup cooked beans)	4.4	Reconstitute 1 part soup with not more than 1 part water
	Pound	6.8	½ cup reconstituted (¼ cup cooked beans)	14.7	
Ready-to-serve	8 oz can	1.0	1 cup serving (½ cup cooked beans)	100.0	
DRY BEANS					
Blackeye beans (or peas)	Pound	28.3	¼ cup cooked beans	3.6	1 lb dry = about 2¾ cup
Garbanzo (chickpeas)	Pound	24.6	¼ cup cooked beans	4.1	1 lb dry = about 2½ cup
Great Northern	Pound	25.5	¼ cup cooked beans	4.0	1 lb dry = about 2½ cup
Kidney	Pound	24.8	¼ cup cooked beans	4.1	1 lb dry = about 2½ cup
Lima					
Large	Pound	27.0	¼ cup cooked beans	3.7	1 lb dry = about 2-5/8 cup
Small	Pound	23.4	¼ cup cooked beans	4.3	1 lb dry = about 2-3/8 cup
Mung	Pound	28.1	¼ cup cooked beans	3.6	1 lb dry = about 2¼ cup
Navy (pea)	Pound	23.9	¼ cup cooked beans	4.2	1 lb dry = about 2¼ cup
Pinto	Pound	24.9	¼ cup cooked beans	4.1	1 lb dry = about 2-3/8 cup
Soybeans	Pound	25.9	¼ cup cooked beans	3.9	1 lb dry = about 2½ cup
DRY BEANS, CANNED					
BEANS (baked or in sauce— includes refried beans)	No. 10 can (110 oz)	48.9	¼ cup cooked beans	2.1	
	No. 2½ can (30 oz)	13.3	¼ cup cooked beans	7.5	

DRY BEANS, CANNED —

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
	No. 300 can (16 oz)	7.1	¼ cup cooked beans	14.1	
BEANS WITH BACON IN SAUCE	Pound	4.7	3/8 cup serving (about ¼ cup cooked beans)	21.0	
BEANS WITH FRANKFURTERS IN SAUCE	Pound	5.3	1/3 cup serving (about 1.0 oz meat/ meat alternate)	18.8	
BLACKEYE BEANS or (Peas)	No. 10 can (105 oz)	43.0	¼ cup heated drained beans	2.4	1 can = about 72 oz (11-3/8 cup) drained beans
	No. 303 can (16 oz)	6.5	¼ cup heated drained beans	15.3	
GARBANZO (Chickpeas)	No. 10 can (106 oz)	47.7	¼ cup drained beans	2.1	
	Pound	7.2	¼ cup drained beans	13.9	
	No. 300 can (15 oz)	6.7	¼ cup drained beans	14.8	
KIDNEY	No. 10 can (108 oz)	41.9	¼ cup heated drained beans	2.4	1 can = about 72 oz (11⅓ cup) drained beans
	No. 303 can (16 oz)	6.2	¼ cup heated drained beans	16.1	
LIMA	No. 10 can (105 oz)	41.0	¼ cup heated drained beans	2.5	1 can = about 72 oz (11¾ cup) drained beans
	No. 303 can (16 oz)	6.2	¼ cup heated drained beans	16.0	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PINTO	No. 10 can (108 oz)	43.3	¼ cup heated drained beans	2.4	1 can = about 93 oz (11-5/8 cup) drained beans
	No. 303 can (16 oz)	6.4	¼ cup heated drained beans	15.6	
BEEF, FRESH OR FROZEN					
BRISKET, CORNED (without bone)	Pound	6.7	1 oz cooked lean meat	14.9	1 lb AP = 0.42 lb cooked lean meat
		4.4	1½ oz cooked lean meat	22.4	
BRISKET, FRESH (without bone)	Pound	7.3	1 oz cooked lean meat	13.6	1 lb AP = 0.46 lb cooked lean meat
		4.9	1½ oz cooked lean meat	20.4	
GROUND BEEF					
Market Style * (no more than 30 percent fat)	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked meat
		7.4	1½ oz cooked lean meat	13.4	
USDA-donated (special purchase) ** (no more than 24 percent fat)	Pound	11.6	1 oz cooked lean meat	8.6	1 lb AP = 0.73 lb cooked meat
		7.7	1½ oz cooked lean meat	12.9	
GROUND BEEF PATTIES, FROZEN ***					
USDA-donated (special purchase) (no more than 24 percent fat)	Pound	5.3	1 portion (3 oz raw) (2.0 oz cooked meat)	18.8	

* Ground Beef, Market style (no more than 30 percent fat) is based on USDA, FSQS standard as published in the Code of Federal Regulations, Title 9, Part 319.15(a) chopped beef, ground beef.

** Ground Beef, USDA-donated (special purchase), frozen (no more than 24 percent fat) is based on Schedule AA-July 1980 USDA Specification for Frozen Ground Beef.

*** Based on Schedule BP—September 1979 USDA Specification for Frozen Ground Beef Patties.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
HEART (trimmed)	Pound	7.0	1 oz cooked lean meat	14.2	1 lb AP = 0.44 lb cooked heart
		4.6	1½ oz cooked lean meat	21.4	
KIDNEY (trimmed)	Pound	8.6	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked kidney
		5.7	1½ oz cooked lean meat	17.4	
LIVER (trimmed)	Pound	11.2	1 oz cooked lean meat	9.0	1 lb AP = 0.70 lb cooked liver
		7.4	1½ oz cooked lean meat	13.4	
ROASTS Chuck (without bone)	Pound	9.6	1 oz cooked lean meat	10.5	1 lb AP = 0.60 lb cooked lean meat
		6.4	1½ oz cooked lean meat	15.7	
(with bone)	Pound	7.2	1 oz cooked lean meat	13.9	1 lb AP = 0.45 lb cooked lean meat
		4.8	1½ oz cooked lean meat	20.9	
Round (without bone)	Pound	9.7	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean meat
		6.5	1½ oz cooked lean meat	15.4	
Rump (without bone)	Pound	9.9	1 oz cooked lean meat	10.1	1 lb AP = 0.62 lb cooked lean meat
		6.6	1½ oz cooked lean meat	15.2	

BEEF, FRESH OR FROZEN — BEEF PRODUCTS, CANNED OR FROZEN

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
STEAKS					
Flank	Pound	10.7	1 oz cooked lean meat	9.4	1 lb AP = 0.67 lb cooked lean meat
		7.1	1½ oz cooked lean meat	14.0	
Round (without bone)	Pound	9.4	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked lean meat
		6.2	1½ oz cooked lean meat	5.9	
STEW MEAT	Pound	8.9	1 oz cooked lean meat	11.2	1 lb AP = 0.56 lb cooked lean meat
		5.9	1½ oz cooked lean meat	16.8	
TONGUE	Pound	9.2	1 oz cooked lean meat	10.8	1 lb AP = 0.58 lb cooked tongue
		6.1	1½ oz cooked lean meat	16.2	
BEEF PRODUCTS, CANNED OR FROZEN					
BARBECUE SAUCE WITH BEEF	Pound	5.3	1/3 cup serving (about 1 oz cooked meat)	18.8	1 lb AP = 0.35 lb cooked meat
BEEF AND GRAVY WITH DUMPLINGS *	Pound	2.3	¾ cup serving (about 1.2 oz cooked meat)	42.2	1 lb AP = 0.18 lb cooked meat
BEEF GOULASH *	Pound	2.3	¾ cup serving (about 1.2 oz cooked meat and ¼ cup vegetable)	42.2	1 lb AP = 0.18 lb cooked meat
BEEF HASH	Pound	5.3	1/3 cup serving (about 1 oz cooked meat and 1/8 cup vegetable)	18.8	1 lb AP = 0.35 lb cooked meat

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*Yield based on the use of raw beef with a maximum of 30%

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEEF SALAD	Pound	5.3	1/3 cup serving (about 1 oz cooked meat)	18.8	1 lb AP = 0.35 lb cooked meat
BEEF STEW*	Pound	2.3	¾ cup serving (about 1.2 oz cooked meat and ¼ cup vegetable)	42.2	1 lb AP = 0.18 lb cooked meat
BEEF TACO FILLING*	Pound	3.5	½ cup serving (about 1.2 oz cooked meat)	28.2	1 lb AP = 0.28 lb cooked meat
BEEF WITH BARBECUE SAUCE	Pound	5.3	1/3 cup serving (about 1.5 oz cooked meat)	18.8	1 lb AP = 0.50 lb cooked meat
BEEF WITH GRAVY CANNED	Pound	5.3	1/3 cup serving (about 1.5 oz cooked meat)	18.8	1 lb AP = 0.50 lb cooked meat
BEEF WITH NATURAL JUICES** CANNED USDA-donated (special purchase)	No. 2½ can (29 oz)	14.7	1 oz heated meat	6.8	
		9.8	1½ oz heated meat	10.2	
	Pound	8.1	1 oz heated meat	12.3	1 lb AP = 0.51 lb heated meat
		5.4	1½ oz heated meat	18.4	
CHILI CON CARNE*	Pound	2.3	¾ cup serving (about 1.8 oz cooked meat)	42.2	1 lb AP = 0.28 lb cooked meat
CHILI CON CARNE WITH BEANS*	Pound	3.5	½ cup serving (about 1.4 oz meat/meat alternate)	28.2	

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*Yield based on the use of raw beef with a maximum of 30% fat.

**Based on Schedule BJ—December 1982 USDA Specification for Beef with Natural Juices, Canned.

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CORNED BEEF AND CABBAGE	Pound	3.5	½ cup serving (about 1 oz cooked meat and ¼ cup vegetable)	28.2	1 lb AP = 0.25 lb cooked meat
CORNED BEEF HASH	Pound	5.3	1/3 cup serving (about 1 oz cooked meat and 1/8 cup vegetable)	18.8	1 lb AP = 0.35 lb cooked meat
GRAVY AND BEEF	Pound	5.3	⅓ cup serving (about 1 oz cooked meat)	18.8	1 lb AP = 0.35 lb cooked meat
GRAVY AND SWISS STEAK	Pound	5.3	⅓ cup serving (about 1 oz cooked meat)	18.8	1 lb AP = 0.35 lb cooked meat
SWISS STEAK WITH GRAVY	Pound	5.3	⅓ cup serving (about 1.5 oz cooked meat)	18.8	1 lb AP = 0.50 lb cooked meat
CHEESE					
AMERICAN, CHEDDAR, MOZZARELLA, OR SWISS (natural or process)	Pound	16.0	1 oz cheese	6.3	1 lb = about 4 cup shredded
		10.6	1½ oz cheese	9.4	
COTTAGE OR RICOTTA	Pound	8.0	2 oz serving - about ¼ cup (1 oz meat alternate)	12.5	1 lb cheese = about 2 cup
		5.3	3 oz serving- about 3/8 cup (1½ oz meat alternate)	18.8	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PARMESAN OR ROMANO (grated)	Pound	16.0	3/8 cup serving (1 oz cheese)	6.3	1 lb = about 5⅔ cup
		10.6	5/8 cup serving (1½ oz cheese)	9.4	
CHEESE FOOD PRODUCTS CHEESE FOOD (process) and CHEESE SPREAD (process)	Pound	8.0	2 oz serving (1 oz meat alternate)	12.5	
		5.3	3 oz serving (1½ oz meat alternate)	18.8	
CHICKEN,* FRESH OR FROZEN					
FRYING CHICKEN **					
Chicken parts Breast halves with ribs (about 6.1 oz each) Market Style	Pound	2.6	1 breast half (about 4.0 oz cooked chicken)	38.2	1 lb AP = 0.66 lb cooked chicken with skin
		8.9	1 oz cooked chicken	11.2	1 lb AP = 0.56 lb cooked chicken without skin
		5.9	1½ oz cooked chicken	16.8	

*1 lb of raw boneless chicken (hand-separated or mechanically separated) = 0.70 lb cooked chicken.

** A serving of frying chicken includes meat and skin. If the average raw weights of the chicken parts are different from those stated, use yield information in column 6 to determine cooked weight.

CHICKEN, FRESH OR FROZEN

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
Breast halves with backs (about 7.5 oz each) from USDA-donated (special purchase) 8 piece cut	Pound	2.1	1 breast half with back (about 4.1 oz cooked chicken)	46.9	1 lb AP = 0.55 lb cooked chicken with skin
		7.5	1 oz cooked chicken	13.3	1 lb AP = 0.47 lb cooked chicken without skin
		5.0	1½ oz cooked chicken	20.0	
Breast portions with backs (about 5.9 oz each) from USDA-donated (special purchase) 9 piece cut	Pound	2.7	1 breast portion with back (about 2.8 oz cooked chicken)	36.9	1 lb AP = 0.48 lb cooked chicken with skin
		6.4	1 oz cooked chicken	15.7	1 lb AP = 0.40 lb cooked chicken without skin
		4.2	1½ oz cooked chicken	23.5	
Breast portions without backs (about 3.9 oz each) from USDA-donated (special purchase) 9 piece cut	Pound	4.1	1 breast portion without back (about 2.4 oz cooked chicken)	24.4	1 lb AP = 0.64 lb cooked chicken with skin
		8.3	1 oz cooked chicken	12.1	1 lb AP = 0.52 lb cooked chicken without skin
		5.5	1½ oz cooked chicken	18.1	

NOTE: A serving of frying chicken includes meat and skin.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
Drumsticks (about 3.7 oz each)	Pound	4.3	1 drumstick (about 1.8 oz cooked chicken)	23.2	1 lb AP = 0.49 lb cooked chicken with skin
		6.5	1 oz cooked chicken	15.3	1 lb AP = 0.41 lb cooked chicken without skin
		4.3	1½ oz cooked chicken	22.9	
Thighs (about 4.0 oz each)	Pound	4.0	1 thigh (about 2.1 oz cooked chicken)	25.0	1 lb AP = 0.52 lb cooked chicken with skin
		6.8	1 oz cooked chicken	14.6	1 lb AP = 0.43 lb cooked chicken without skin
		4.5	1½ oz cooked chicken	21.8	
Thighs with backs (about 8.7 oz each) from USDA-donated (special purchase)	Pound	2.1	1 thigh with back (about 3.1 oz cooked chicken)	45.7	1 lb AP = 0.42 lb cooked chicken with skin
		5.2	1 oz cooked chicken	19.0	1 lb AP = 0.33 lb cooked chicken without skin
		3.5	1½ oz cooked chicken	28.5	
Back pieces (about 6.0 oz each) Market Style	Pound	2.6	1 back piece (about 1.9 oz cooked chicken)	37.5	1 lb AP = 0.32 lb cooked chicken with skin
		3.8	1 oz cooked chicken	26.1	1 lb AP = 0.24 lb cooked chicken without skin
		2.5	1½ oz cooked chicken	39.1	

NOTE: A serving of frying chicken includes meat and skin.

CHICKEN, FRESH OR FROZEN

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
Wings (about 3.1 oz each)	Pound	5.1	1 wing (about 1 oz cooked chicken)	19.4	1 lb AP = 0.34 lb cooked chicken with skin
		4.1	1 oz cooked chicken	24.0	1 lb AP = 0.26 lb cooked chicken without skin
		2.7	1½ oz cooked chicken	36.1	
WHOLE CHICKEN					
Whole with neck and giblets	Pound	6.5	1 oz cooked chicken including neck meat and giblets	15.3	1 lb AP = 0.41 lb cooked chicken without skin
		3.8	1½ oz cooked chicken including neck meat and giblets	26.1	
		5.7	1 oz cooked chicken excluding neck meat and giblets	17.4	1 lb AP = 0.36 lb cooked chicken without skin
		3.8	1½ oz cooked chicken excluding neck meat and giblets	26.1	
Giblets					
Gizzards	Pound	9.2	1 oz cooked chicken	10.8	1 lb AP = 0.58 lb cooked gizzards
		6.1	1½ oz cooked chicken	16.2	
Hearts	Pound	8.6	1 oz cooked chicken	1.6	1 lb AP = 0.58 lb cooked hearts
		5.7	1½ oz cooked chicken	17.4	

NOTE: A serving of frying chicken includes meat and skin.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
Livers	Pound	9.9	1 oz cooked chicken	10.1	1 lb AP = 0.62 lb cooked livers
		6.6	1½ oz cooked chicken	15.2	
CHICKEN, FROZEN USDA-donated (special purchase)					
FRYING CHICKEN OR PRECOOKED BREADED CHICKEN					
Whole, cut up, 9 piece (about 2¾ lb without neck and giblets) Fryer pieces: 3 breast pieces cut with and without back 2 drumsticks 2 thighs with back 2 wings	40 lb box	(about 97)	2 oz or more cooked chicken (1 serving = 1 breast portion with back, or 1 breast portion without back, or 1 drumstick and wing, or 1 thigh with back)	(about 1.1)	1 box contains about 14 chickens weighing 2½ to 3¼ lb each
FRYING CHICKEN, FROZEN					
Whole, cut-up, 8 pieces (about 2¾ lb without neck and giblets) Fryer pieces: 2 breast pieces 2 drumsticks 2 thighs with back 2 wings	40 lb box	(about 83)	2 oz or more cooked chicken (1 serving = 1 breast piece, or 1 drumstick and 1 wing, or 1 thigh with back)	(about 1.2)	1 box contains about 14 chickens weighing 2½ to 3¼ lb

NOTE: A serving of frying chicken includes meat and skin.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CHICKEN PRODUCTS, CANNED OR FROZEN					
BONED CHICKEN CANNED USDA-donated (special purchase)* Boned Poultry with broth	Pound	11.5	1 oz heated chicken	8.7	1 lb AP = 0.72 lb heated chicken and skin
		7.6	1½ oz heated chicken	13.1	
	Pound	11.5	1.2 oz unheated chicken (1 oz cooked chicken)	8.7	
	No. 2½ can (29 oz)	20.8	1 oz heated chicken	4.8	
		13.9	1½ oz heated chicken	7.2	
		20.8	1.2 oz unheated chicken (1 oz cooked chicken)	4.8	
Market Pack Boned, solid pack	Pound	14.2	1/8 cup serving (about 1 oz cooked chicken including skin)	7.1	1 lb AP = 0.93 lb cooked chicken and skin
Boned	Pound	14.2	1/8 cup serving (about 1 oz cooked chicken including skin)	7.1	1 lb AP = 0.88 lb cooked chicken and skin
CHICKEN A LA KING	Pound	2.3	¾ cup serving (about 1.3 oz cooked chicken)	42.2	1 lb AP = 0.20 lb cooked chicken
CHICKEN BARBECUE, MINCED	Pound	3.5	½ cup serving (about 1.8 oz cooked chicken)	28.2	1 lb AP = 0.40 lb cooked chicken
CHICKEN CHILI	Pound	2.3	¾ cup serving (1.8 oz cooked chicken)	42.2	1 lb AP = 0.28 lb cooked chicken
CHICKEN CHILI WITH BEANS	Pound	3.5	½ cup serving (about 1.4 oz cooked meat/meat alternate)	28.2	

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* Based on Announcement/Invitation PY 104—October 1982 USDA Specification for Canned Boned Poultry.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CHICKEN HASH	Pound	2.6	⅔ cup serving (about 1.8 oz cooked chicken and ¼ cup vegetable)	37.5	1 lb AP = 0.30 lb cooked chicken
CHICKEN SALAD	Pound	2.6	⅔ cup serving (about 1.4 oz cooked chicken including skin)	37.5	1 lb AP = 0.24 lb cooked chicken
CHICKEN WITH GRAVY	Pound	5.3	⅓ cup serving (about 1 oz cooked chicken)	18.8	1 lb AP = 0.35 lb cooked chicken
CHICKEN WITH NOODLES OR DUMPLINGS	Pound	1.7	1 cup serving (about 1.3 oz cooked chicken)	56.3	1 lb AP = 0.15 lb cooked chicken
CREAMED CHICKEN	Pound	2.3	¾ cup serving (about 1.3 oz cooked chicken)	42.2	1 lb AP = 0.20 lb cooked chicken
EGGS					
DRIED EGG MIX * USDA-donated (special purchase)	Pound	16.0	1 large egg **	6.3	3 cup or 12 oz dried egg mix and 3 cup water = 1 dozen large eggs
	Package (6 oz)	6.0	1 large egg**	16.7	
DRIED WHOLE EGGS***	Pound	32.0	1 large egg **	3.2	1 lb AP = about 5⅓ cup
	No. 10 can (48 oz)	96.0	1 large egg**	1.1	2 cup (6 oz) dried eggs and 2 cup water = 1 dozen large eggs
FRESH SHELL EGGS****	Dozen (24 oz)	12.0	1 large egg**	8.4	1 qt (34 oz) about 19 large whole eggs, or 29 whites, or 57 yolks

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* Based on Announcement/Invitation PY-103, September 1982 USDA Specification for Dried Egg Mix.

**Check the meal pattern charts on pages 3,5,6 and 7 for the meat alternate equivalency of one large egg in the various Child Nutrition Programs.

***Quantities are for dried whole eggs. For blends and specialty egg products, use equivalents on package label.

****For other sizes of eggs to use in place of large size eggs, multiply the number (or dozens or cases) of large size eggs by a factor as follows: Extra large size, 0.87; medium size, 1.14; small size, 1.35.

EGGS —
FRANKFURTERS, BOLOGNA

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
FROZEN WHOLE EGGS	Pound	9.0	1 large egg*	11.1	1 lb frozen = about 1-7/8 cup (9 large eggs)
FRANKFURTERS, BOLOGNA**					
BOLOGNA***	Pound	16.0	1 oz serving	6.3	
FRANKFURTERS***					
8 per pound	Pound	8.0	2 oz frankfurter	12.5	
10 per pound	Pound	10.0	1.6 oz frankfurter	10.0	
KNOCKWURST	Pound	16.0	1 oz serving	6.3	
VIENNA SAUSAGE**	Pound (drained weight)	16.0	1 oz serving	6.3	

*Check the meal pattern charts on pages 3,5,6 and 7 for the meat alternate equivalency of one large egg in the various Child Nutrition Programs.

**Includes meat and poultry products. Yields for Frankfurters, Bologna, and similar sausage products are based on products which do not contain meat or poultry byproducts, cereals, or extenders.

***Yield information taken from the Food Buying Guide for Type A School Lunches PA-270, September 1972, slightly revised September 1979.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
LAMB, FRESH OR FROZEN					
CHOPS, SHOULDER (with bone)	Pound	7.3	1 oz cooked lean meat	13.6	1 lb AP = 0.46 lb cooked lean meat
		4.9	1½ oz cooked lean meat	20.4	
ROASTS					
Leg (without bone)	Pound	9.7	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean meat
		6.5	1½ oz cooked lean meat	15.4	
Shoulder (without bone)	Pound	8.6	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
		5.7	1½ oz cooked lean meat	17.4	
STEW MEAT	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked lean meat
		6.9	1½ oz cooked lean meat	14.5	
PEANUT BUTTER, CANNED					
PEANUT BUTTER	No. 10 can (108 oz)	97.5	2 tablespoons peanut butter	1.1	2 Tbsp = about 1.1 oz peanut butter
		65.0	3 tablespoons peanut butter	1.6	
	32 oz jar	28.9	2 tablespoons peanut butter	3.5	
		19.3	3 tablespoons peanut butter	5.2	
	Pound	14.4	2 tablespoons peanut butter	7.0	
		9.7	3 tablespoons peanut butter	10.4	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEAS AND LENTILS, DRY					
DRY PEAS					
Split peas	Pound	23.1	¼ cup cooked peas	4.4	1 lb dry = about 2¼ cup
Whole peas	Pound	25.6	¼ cup cooked peas	4.0	1 lb dry = about 2⅓ cup
LENTILS	Pound	29.6	¼ cup cooked lentils	3.4	1 lb dry = about 2-3/8 cup
PEA SOUP, CANNED (includes cream of pea soup)					
Condensed (1 part soup to 1 part water)	No. 3 Cyl (50 oz)	23.0	½ cup reconstituted (¼ cup cooked peas)	4.4	Reconstitute 1 part soup with not more than 1 part water
	Pound	7.3	½ cup reconstituted (¼ cup cooked peas)	13.6	
Ready-to-serve	8 oz can	1.0	1 cup serving (½ cup cooked peas)	100.0	
PORK, FRESH OR FROZEN					
CHOPS, LOIN (with bone)	Pound	6.5	1 oz cooked lean meat	15.3	1 lb AP = 0.41 lb cooked lean meat
		4.3	1½ oz cooked lean meat	22.9	
GROUND PORK, FROZEN USDA-donated (special purchase)* (no more than 24 percent fat)	Pound	11.6	1 oz cooked lean meat	8.6	1 lb AP = 0.73 lb cooked meat
		7.7	1½ oz cooked lean meat	12.9	

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*Ground Pork, USDA-donated (special purchase), frozen (no more than 24 percent fat) is based on Schedule GP-June 1980 , USDA Specification for Ground Pork.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
HEART (trimmed)	Pound	8.0	1 oz cooked meat	12.5	1 lb AP = 0.50 lb cooked heart
		5.3	1½ oz cooked meat	18.8	
LIVER (untrimmed)	Pound	9.7	1 oz cooked meat	10.3	1 lb AP = 0.61 lb cooked liver
		6.5	1½ oz cooked meat	15.4	
ROASTS					
Leg, fresh ham (without bone)	Pound	8.4	1 oz cooked lean meat	11.8	1 lb AP = 0.53 lb cooked lean meat
		5.6	1½ oz cooked lean meat	17.7	
(with bone)	Pound	7.3	1 oz cooked lean meat	13.6	1 lb AP = 0.46 lb cooked lean meat
		4.9	1½ oz cooked lean meat	20.4	
Loin (without bone)	Pound	8.6	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
		5.7	1½ oz cooked lean meat	17.4	
(with bone)	Pound	6.5	1 oz cooked lean meat	15.3	1 lb AP = 0.41 lb cooked lean meat
		4.3	1½ oz cooked lean meat	22.9	
Shoulder, Boston Butt (without bone)	Pound	8.6	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
		5.7	1½ oz cooked lean meat	17.4	
(with bone)	Pound	8.0	1 oz cooked lean meat	12.5	1 lb AP = 0.50 lb cooked lean meat
		5.3	1½ oz cooked lean meat	18.8	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
ROASTS —Continued					
Shoulder, picnic (without bone)	Pound	7.3	1 oz cooked lean meat	13.6	1 lb AP = 0.46 lb cooked lean meat
		4.9	1½ oz cooked lean meat	20.4	
(with bone)	Pound	6.0	1 oz cooked lean meat	16.5	1 lb AP = 0.38 lb cooked lean meat
		4.0	1½ oz cooked lean meat	24.7	
SAUSAGE,* BULK, LINK, OR PATTY	Pound	7.5	1 oz cooked lean meat	13.3	1 lb AP = 0.47 lb cooked lean meat
		5.0	1½ oz cooked lean meat	20.0	
SPARERIBS	Pound	6.2	1 oz cooked lean meat	16.1	1 lb AP = 0.39 lb cooked meat
		4.1	1½ oz cooked lean meat	24.1	
STEW MEAT	Pound	7.2	1 oz cooked lean meat	13.9	1 lb AP = 0.45 lb cooked lean meat
		4.8	1½ oz cooked lean meat	20.9	
PORK, MILD CURED					
BACON, CANADIAN	Pound	11.0	1 oz cooked lean meat	9.1	1 lb AP = 0.69 lb cooked lean meat
		7.3	1½ oz cooked lean meat	13.6	

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*Fresh Pork Sausage, Market Style (no more than 50 percent trimmable fat) is based on USDA, FSIS Standard as published in the Code of Federal Regulations, Title 9, Part 319.141 Fresh Pork Sausage.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
HAM (without bone)	Pound	10.0	1 oz cooked lean meat	10.0	1 lb AP = 0.63 lb cooked lean meat
		6.7	1½ oz cooked lean meat	14.9	
(with bone)	Pound	8.4	1 oz cooked lean meat	11.8	1 lb AP = 0.53 lb cooked lean meat
		5.6	1½ oz cooked lean meat	17.7	
HAM, canned	Pound	10.2	1 oz heated lean meat	9.8	1 lb AP = 0.64 lb cooked lean meat
		6.8	1½ oz heated lean meat	14.7	
	Pound	10.2	1.2 oz unheated meat (1 oz lean meat)	9.8	
		6.8	1.8 oz unheated meat (1.5 oz lean meat)	14.7	
SHOULDER, BOSTON BUTT (without bone)	Pound	9.6	1 oz cooked lean meat	10.5	1 lb AP = 0.60 lb cooked lean meat
		6.4	1½ oz cooked lean meat	15.7	
(with bone)	Pound	8.6	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
		5.7	1½ oz cooked lean meat	17.4	
SHOULDER, PICNIC (without bone)	Pound	8.4	1 oz cooked lean meat	11.8	1 lb AP = 0.53 lb cooked lean meat
		5.6	1½ oz cooked lean meat	17.7	
(with bone)	Pound	6.7	1 oz cooked lean meat	14.9	1 lb AP = 0.42 lb cooked lean meat
		4.4	1½ oz cooked lean meat	22.4	

PORK PRODUCTS, CANNED — SEAFOOD, FRESH OR FROZEN

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PORK PRODUCTS, CANNED					
PORK WITH NATURAL JUICES*					
USDA-donated (special purchase)	No. 2½ can (29 oz)	14.7	1 oz heated meat	6.8	1 lb AP = 0.51 lb heated canned meat
		9.8	1½ oz heated meat	10.2	
	Pound	8.1	1 oz heated meat	12.3	
		5.4	1½ oz heated meat	18.4	
SEAFOOD, FRESH OR FROZEN					
CLAMS,** SHUCKED	Pound	4.4	1 oz cooked fish	22.4	1 lb AP = 0.28 lb cooked clams
		2.9	1½ oz cooked fish	33.5	
CRAB MEAT	Pound	15.5	1 oz cooked fish	6.5	1 lb AP = 0.97 lb cooked crab meat
		10.3	1½ oz cooked fish	8.4	
FISH FILLETS***	Pound	11.2	1 oz cooked fish	9.0	1 lb AP = 0.70 lb cooked fish
		7.4	1½ oz cooked fish	13.4	
FISH PORTIONS, FROZEN					
Fried battered**** (45 percent fish)					
3 oz portion	Pound	5.3	1 portion (about 1.1 oz cooked fish)	18.8	1 lb AP = 0.37 lb cooked fish
2 oz portion	Pound	8.0	1 portion (about 0.7 oz cooked fish)	12.5	1 lb AP = 0.37 lb cooked fish

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* Based on Schedule PJ-February 1981 USDA Specification for Pork with Natural Juices, Canned.

** 1 lb of raw minced clams = 0.66 lb cooked fish.

*** 1 lb of raw minced fish = 0.75 lb cooked fish.

**** There is no standard for this product at this time. It is recommended that you use products with CN labels or specify "FISH PORTIONS, FROZEN, FRIED BATTERED (45 percent fish)" and request a Certificate of Inspection from the processor.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
FISH PORTIONS FROZEN-Continued					
Fried breaded (65 percent fish)*					
4 oz portion	Pound	4.0	1 portion (about 2.2 oz cooked fish)	25.0	1 lb AP = 0.54 lb cooked fish
3 oz portion	Pound	5.3	1 portion (about 1.6 oz cooked fish)	18.8	1 lb AP = 0.54 lb cooked fish
2 oz portion	Pound	8.0	1 portion (about 1.1 oz cooked fish)	12.5	1 lb AP = 0.54 lb cooked fish
Raw breaded (75 percent fish)**					
4 oz portion	Pound	4.0	1 portion (about 2.3 oz cooked fish)	25.0	1 lb AP = 0.58 lb cooked fish
3 oz portion	Pound	5.3	1 portion (about 1.7 oz cooked fish)	18.8	1 lb AP = 0.58 lb cooked fish
2 oz portion	Pound	8.0	1 portion (about 1.2 oz cooked fish)	12.5	1 lb AP = 0.58 lb cooked fish
Unbreaded					
4 oz portion	Pound	4.0	1 portion (about 3.1 oz cooked fish)	25.0	1 lb AP = 0.78 lb cooked fish
3 oz portion	Pound	5.3	1 portion (about 2.3 oz cooked fish)	18.8	1 lb AP = 0.78 lb cooked fish
2 oz portion	Pound	8.0	1 portion (about 1.6 oz cooked fish)	12.5	1 lb AP = 0.78 lb cooked fish

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* Fish Portions, Frozen, Fried Breaded is based on USDC standard as published in the Code of Federal Regulations, Title 50, Part 264, Subpart G—United States Standards for Grades of Frozen Fried Fish Portions which specify that the product must contain a minimum of 65 percent fish.

** Fish Portions, Frozen, Raw Breaded is based on USDC standard as published in the Code of Federal Regulations, Title 50, Part 264, Subpart E—United States Standards for Grades of Frozen Raw Breaded Fish Portions which specify that the product must contain a minimum of 75 percent fish.

SEAFOOD, FRESH OR FROZEN

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
FISH STEAKS, FROZEN	Pound	10.5	1 oz cooked fish	9.5	1 lb AP = 0.66 lb cooked fish
		7.0	1½ oz cooked fish	14.2	
FISH STICKS, FROZEN					
Fried breaded (60 percent fish)*					
1 oz stick	Pound	4.0	4 sticks (about 2.0 oz cooked fish)	25.0	1 lb AP = 0.49 lb cooked fish
		5.3	3 sticks (about 1.5 oz cooked fish)	18.8	1 lb AP = 0.49 lb cooked fish
		8.0	2 sticks (about 1.0 oz cooked fish)	12.5	1 lb AP = 0.49 lb cooked fish
		16.0	1 stick (about 0.5 oz cooked fish)	6.3	1 lb AP = 0.49 lb cooked fish
Raw breaded (72 percent fish)**					
1 oz stick	Pound	4.0	4 sticks (about 2.2 oz cooked fish)	25.0	1 lb AP = 0.56 lb cooked fish
		5.3	3 sticks (about 1.7 oz cooked fish)	18.8	1 lb AP = 0.56 lb cooked fish
		8.0	2 sticks (about 1.1 oz cooked fish)	12.5	1 lb AP = 0.56 lb cooked fish
		16.0	1 stick (about 0.6 oz cooked fish)	6.3	1 lb AP = 0.56 lb cooked fish
OYSTERS, SHUCKED	Pound	6.0	1 oz cooked fish	16.5	1 lb AP = 0.38 lb cooked oysters
		4.0	1½ oz cooked fish	24.7	

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*Fish Sticks, Frozen, Fried Breaded is based on USDC standard as published in the Code of Federal Regulations, Title 50, Part 264, Subpart F—United States Standards for Grades of Frozen Fried Fish Sticks which specify that the product must contain a minimum of 60 percent fish.

**Fish Sticks, Frozen, Raw Breaded is based on USDC standard as published in the Code of Federal Regulations, Title 50, Part 264, Subpart D—United States Standards for Grades of Frozen Raw Fish Sticks which specify that the product must contain a minimum of 72 percent fish.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SCALLOPS, FROZEN	Pound	8.4	1 oz cooked fish	11.8	1 lb AP = 0.53 lb cooked scallops
		5.6	1½ oz cooked fish	17.7	
SHRIMP*					
Cooked, peeled, and cleaned					
Fresh	Pound	16.0	1 oz cooked fish	6.3	1 lb AP = 1.00 lb cooked shrimp
		10.6	1½ oz cooked fish	9.4	
Frozen	Pound	13.2	1 oz cooked fish	7.6	1 lb AP = 0.83 lb cooked shrimp
		8.8	1½ oz cooked fish	11.3	
Peeled and cleaned					
Frozen	Pound	9.9	1 oz cooked fish	10.1	1 lb AP = 0.62 lb cooked shrimp
		6.6	1½ oz cooked fish	15.2	
Raw in shell	Pound	8.6	1 oz cooked fish	11.6	1 lb AP = 0.54 lb cooked shrimp
		5.7	1½ oz cooked fish	17.4	
SEAFOOD, CANNED					
CLAMS, MINCED	51 oz can	19.3	1 oz heated fish	5.2	1 can = about 22 oz drained clams
		12.9	1½ oz heated fish	7.8	
	7½ oz can	2.8	1 oz heated fish	35.1	
		1.9	1½ oz heated fish	52.7	
MACKEREL	15 oz can	7.9	1 oz heated fish	12.6	1 can = about 8-7/8 oz drained mackerel
		5.3	1½ oz heated fish	18.9	
MAINE SARDINES	15 oz can	13.2	1 oz fish	7.6	1 can = about 13¼ oz drained sardines
		8.8	1½ oz fish	11.4	

*1 lb raw minced shrimp = 0.58 lb cooked fish.

SEAFOOD CANNED —

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SALMON, PINK	64 oz can	48.0	1 oz heated fish	2.1	1 can = about 52 oz drained salmon
		32.0	1½ oz heated fish	3.2	
	15½ oz can	11.6	1 oz heated fish	8.6	1 can = about 12¾ oz drained salmon
		7.7	1½ oz heated fish	12.9	
SHRIMP	13¼ oz can (drained weight)	13.2	1 oz fish	7.6	1 can = 13¼ oz drained shrimp
		8.8	1½ oz fish	11.4	
TUNA					
Water pack chunk	66½ oz can	51.2	1 oz fish	2.0	1 can = 51 oz drained tuna
		34.1	1½ oz fish	3.0	
	6½ oz can	5.7	1 oz fish	17.3	1 can = 5.7 oz drained tuna
		3.8	1½ oz fish	26.0	
Grated or Flake	60 oz can	54.6	1 oz fish	1.9	1 can = 55 oz drained tuna
		36.4	1½ oz fish	2.8	
	6 oz can	5.4	1 oz fish	18.4	1 can = 5.4 oz drained tuna
		3.6	1½ oz fish	27.5	
Solid	66½ oz can	50.5	1 oz fish	2.0	1 can = 51 oz drained tuna
		33.6	1½ oz fish	3.0	
	13 oz can	11.3	1 oz fish	8.9	1 can = 11.3 oz drained tuna
		7.5	1½ oz fish	13.3	
	7 oz can	6.3	1 oz fish	15.9	1 can = 6.3 oz drained tuna
		4.2	1½ oz fish	23.9	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURKEY, FRESH OR FROZEN *					
TURKEY (ready-to-cook)					
Whole					
Without neck and giblets	Pound	8.4	1 oz cooked turkey with skin	11.8	1 lb AP = 0.53 lb cooked turkey
		5.6	1½ oz cooked turkey with skin	17.7	
		7.5	1 oz cooked turkey without skin	13.3	1 lb AP = 0.47 lb cooked turkey
		5.0	1½ oz cooked turkey without skin	20.0	
With neck and giblets	Pound	7.6	1 oz cooked turkey with skin without meat from neck and giblets	13.1	1 lb AP = 0.48 lb cooked turkey
		5.1	1½ oz with skin	19.6	
		6.7	1 oz cooked turkey without skin, giblets, and meat from neck	14.9	1 lb AP = 0.42 lb cooked turkey
		4.4	1½ oz without skin	22.4	
Halves	Pound	8.4	1 oz cooked turkey with skin	11.8	1 lb AP = 0.53 lb cooked turkey
		5.6	1½ oz with skin	17.7	
		7.3	1 oz cooked turkey without skin	13.6	1 lb AP = 0.46 lb cooked turkey
		4.9	1½ oz without skin	20.4	

*1 lb of raw boneless turkey (hand-separated or mechanically separated) = 0.70 lb cooked turkey.

TURKEY, FRESH OR FROZEN

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURKEY (ready to cook) Continued					
Leg quarters	Pound	8.4	1 oz cooked turkey with skin	11.8	1 lb AP = 0.53 lb cooked turkey
		5.6	1½ oz with skin	17.7	
		7.6	1 oz cooked turkey without skin	13.1	1 lb AP = 0.48 lb cooked turkey
		5.1	1½ oz without skin	19.6	
TURKEY, GROUND, FROZEN USDA-donated (special purchase)	Pound	10.7	1 oz cooked turkey	9.4	1 lb AP = 0.67 lb cooked turkey
		7.1	1½ oz cooked turkey	14.0	
TURKEY PARTS					
Breasts (whole or halves)	Pound	10.2	1 oz cooked turkey with skin	9.8	1 lb AP = 0.64 lb cooked turkey
		6.8	1½ oz cooked turkey with skin	14.7	
		9.1	1 oz cooked turkey without skin	11.0	1 lb AP = 0.57 lb cooked turkey
		6.0	1½ oz cooked turkey without skin	16.5	
Drumsticks	Pound	7.6	1 oz cooked turkey with skin	13.1	1 lb AP = 0.48 lb cooked turkey
		5.1	1½ oz cooked turkey with skin	19.6	
		7.0	1 oz cooked turkey without skin	14.2	1 lb AP = 0.44 lb cooked turkey
		4.6	1½ oz cooked turkey without skin	21.4	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURKEY PARTS — Continued					
Thighs	Pound	8.6	1 oz cooked turkey with skin	11.6	1 lb AP = 0.54 lb cooked turkey
		5.7	1½ oz cooked turkey with skin	17.4	
		8.0	1 oz cooked turkey without skin	12.5	1 lb AP = 0.50 lb cooked turkey
		5.3	1½ oz cooked turkey without skin	18.8	
Backs	Pound	6.8	1 oz cooked turkey with skin	14.6	1 lb AP = 0.43 lb cooked turkey
		4.5	1½ oz cooked turkey with skin	21.8	
		5.4	1 oz cooked turkey without skin	18.4	1 lb AP = 0.34 lb cooked turkey
		3.6	1½ oz cooked turkey without skin	27.6	
Necks	Pound	7.6	1 oz cooked turkey	13.1	1 lb AP = 0.48 lb cooked turkey
		5.1	1½ oz cooked turkey	19.6	
Wings	Pound	5.2	1 oz cooked turkey without skin	19.0	1 lb AP = 0.33 lb cooked turkey
		3.5	1½ oz cooked turkey without skin	28.5	

TURKEY, FRESH OR FROZEN

Meat and Meat Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURKEY GIBLETS					
Gizzards	Pound	9.1	1 oz cooked turkey	11.0	1 lb AP = 0.57 lb cooked whole gizzards
		6.0	1½ oz cooked turkey	16.5	
Hearts	Pound	9.1	1 oz cooked turkey	11.0	1 lb AP = 0.57 lb cooked hearts
		6.0	1½ oz cooked turkey	16.5	
Livers	Pound	11.5	1 oz cooked turkey	8.7	1 lb AP = 0.72 lb cooked livers
		7.6	1½ oz cooked turkey	13.1	
TURKEY HAM* Cooked	Pound	11.2	1.4 oz serving (1 oz cooked lean meat)	9.0	1 lb AP = 0.70 lb cooked turkey
		7.4	2.1 oz serving (1½ oz cooked lean meat)	13.4	
TURKEY ROAST,** FROZEN USDA-donated (special purchase)	Pound	10.5	1 oz cooked turkey	9.5	1 lb AP = 0.66 lb cooked turkey
		6.9	1½ oz cooked turkey	14.3	
TURKEY ROLLS,*** FROZEN USDA-donated (special purchase) Cooked	Pound	10.5	1½ oz serving (1 oz cooked lean meat)	9.5	1 lb AP = 0.66 lb cooked turkey
		7.0	2.3 oz serving (1½ oz cooked lean meat)	14.2	

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*Turkey ham is based on USDA, FSIS Standard as published in Vol. 44 No. 177, August 31, 1979 (to be Part 381.171 Subpart P, of the Code of Federal Regulations, Title 9).

**Turkey Roast, USDA-donated (special purchase) frozen is based on Announcement PY-100, July 1982, specification for frozen turkey roast.

***Turkey rolls, USDA-donated (special purchase) cooked, frozen is based on Announcement PY-96-June 1981, specification for cooked turkey rolls.

TURKEY PRODUCTS, CANNED OR FROZEN

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURKEY PRODUCTS, CANNED OR FROZEN					
BONED TURKEY CANNED					
Boned	Pound	14.2	1/8 cup serving (about 1 oz cooked turkey with skin)	7.1	1 lb AP = 0.88 lb cooked turkey
Boned, solid pack	Pound	14.2	1/8 cup serving (about 1 oz cooked turkey with skin)	7.1	1 lb AP = 0.93 lb cooked turkey
Boned, with broth	Pound	7.1	¼ cup serving (about 1.8 oz cooked turkey with skin)	14.1	1 lb AP = 0.78 lb cooked turkey
CREAMED TURKEY	Pound	2.3	¾ cup serving (about 1.3 oz cooked turkey)	42.2	1 lb AP = 0.20 lb cooked turkey
TURKEY A LA KING	Pound	2.3	¾ cup serving (about 1.3 oz cooked turkey)	42.2	1 lb AP = 0.20 lb cooked turkey
TURKEY BARBECUE, MINCED	Pound	3.5	½ cup serving (about 1.8 oz cooked turkey)	28.1	1 lb AP = 0.40 lb cooked turkey
TURKEY CHILI	Pound	2.3	¾ cup serving (1.8 oz cooked turkey)	42.2	1 lb AP = 0.28 lb cooked turkey
TURKEY CHILI WITH BEANS	Pound	3.5	½ cup serving (equivalent to 1.4 oz cooked meat/meat alternate)	28.2	
TURKEY HASH	Pound	2.6	⅔ cup serving (about 1.8 oz cooked turkey and ¼ cup vegetable)	37.5	1 lb AP = 0.30 lb cooked turkey
TURKEY SALAD	Pound	2.6	⅔ cup serving (about 1.4 oz cooked turkey with skin)	37.5	1 lb AP = 0.24 lb cooked turkey
TURKEY WITH GRAVY	Pound	5.3	⅓ cup serving (about 1 oz cooked turkey)	18.8	1 lb AP = 0.35 lb cooked turkey

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURKEY WITH NOODLES OR DUMPLINGS	Pound	1.7	1 cup serving (about 1.3 oz cooked turkey)	56.3	1 lb AP = 0.15 lb cooked turkey
VEAL, FRESH OR FROZEN					
CUTLETS, LEG (without bone)	Pound	8.6	1 oz cooked lean meat	11.6	1 lb AP = 0.54 lb cooked lean meat
		5.7	1½ oz cooked lean meat	17.4	
HEART (trimmed)	Pound	9.4	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked heart
		6.2	1½ oz cooked lean meat	15.9	
LIVER, CALF (trimmed)	Pound	10.8	1 oz cooked lean meat	9.2	1 lb AP = 0.68 lb cooked liver
		7.2	1½ oz cooked lean meat	13.8	
ROASTS					
Chuck (without bone)	Pound	9.4	1 oz cooked lean meat	10.6	1 lb AP = 0.59 lb cooked lean meat
		6.2	1½ oz cooked lean meat	15.9	
Leg (without bone)	Pound	9.7	1 oz cooked lean meat	10.3	1 lb AP = 0.61 lb cooked lean meat
		6.5	1½ oz cooked lean meat	15.4	
STEW MEAT	Pound	10.4	1 oz cooked lean meat	9.7	1 lb AP = 0.65 lb cooked lean meat
		6.9	1½ oz cooked lean meat	14.5	
GROUND (no more than 16 percent fat)	Pound	12.6	1 oz cooked lean meat	8.0	1 lb AP = 0.79 lb cooked lean meat
		8.4	1½ oz cooked lean meat	11.9	

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VEGETABLES AND FRUITS

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U.S. Department of Agriculture

Section 2, Vegetables and Fruits for the Child Nutrition Programs

Regulations for the Child Nutrition Programs require that each lunch or supper and breakfast served contain vegetables and fruits (and snacks may also have vegetables and fruits as possible components), as described in the Meal Pattern Charts on pages 3, 5, 6, and 7.

Specific requirements:

- You may meet no more than 1/2 of the total requirement with full-strength vegetable or fruit juice for lunch or supper. Full-strength juice* may be used to meet the total requirement for breakfast or as one component of a snack.

- You may count cooked dry beans or peas as a vegetable or as a meat alternate, but not as both in the same meal.

- You may not serve juice if you serve milk as the only other component of a snack.

- To help assure that all school lunches meet nutritional goals, and respond to dietary guidelines, USDA recommends that:

Lunches include a vitamin A vegetable or fruit at least twice a week

Lunches include a vitamin C vegetable or fruit two or three times a week, and that breakfast include them frequently

Meals include several iron-rich foods each day

Menu planners keep salt, sugar, and fat at a moderate level in meals

Meals include a variety of vegetables and fruits

Meals include foods that are good sources of fiber.

Refer to the appropriate program planning guide—*Menu Planning Guide for School Food Service*, PA-1260; *A Planning Guide for Food Service in Child Care Centers*, FNS-64; or the *Sponsor Meal Preparation Handbook for the Summer Food Service Program*, FNS-207, for further information.

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*Any product—either liquid or frozen—labeled "juice," "full-strength juice," "single-strength juice," or "reconstituted juice" is considered full-strength juice. To be used in meeting a part of the vegetable/fruit requirement, the product must contain a minimum of 50 percent full-strength juice.

Vegetables and Fruits for the School Breakfast Program

Regulations for the School Breakfast Program require that a breakfast contain a 1/2-cup serving of fruit or fruit juice, or vegetable or vegetable juice. You can use full-strength fruit juice or vegetable juice to meet all of the requirement.

USDA recommends that you plan to include vitamin C foods frequently, and foods rich in iron each day.

Products That Do Not Meet Requirements

The following products **do not qualify** as vegetable or fruit and may not be credited toward meeting the vegetable/fruit requirement in any meal served under the Child Nutrition Programs:

- Snack-type foods made from vegetables or fruits, such as potato chips, corn curls, and banana chips
- Pickle relish
- Tomato catsup and chili sauce

Information Included in this Section

Over 200 different vegetables and fruits—fresh, canned, frozen, and dehydrated—are listed alphabetically. Canned and frozen juices and canned soups are listed at the end of the section.

Vegetable and fruit information includes:

- Yield information on common institutional packs, smaller packs, and 1-pound units of many canned and frozen vegetables and fruits.

- Whenever available, data on unsweetened canned and frozen fruits or those packed in juice, light syrup, or water.

- Net weight of contents of the can (including liquid) under the can size in Column 2 (exceptions are drained weight for mushrooms and olives). Minimum weight and volume of drained vegetables or fruits in No. 10 cans are usually given in Column 6.

- Yields in terms of 1/4-cup servings.

- Yields, in portions of a cup, of whole fresh vegetables and fruits (raw or cooked).

- Contribution to the meal patterns.

- Yield information on juice concentrates, tomato paste, and tomato puree as if reconstituted to full strength.

- Yield information on canned soups that contain at least 1/4 cup of vegetable per cup of soup.

Criteria for Yields

- A serving of cooked vegetable is considered to be *drained*. If it is a canned, heated vegetable, use the listing in Column 4 that says "1/4 cup heated vegetable." If it is served unheated, the appropriate listing is "1/4 cup vegetable."

- A serving of raw vegetable used in salads with dressing is shown as "1/4 cup raw (pieces, shredded, chopped) with dressing."

- A serving of canned fruit includes the juice or syrup in which the fruit is packed unless otherwise indicated.

- A serving of fruit consists of fruit and juice even where it is only described as "cooked."

- A serving of thawed frozen fruit is fruit plus the juice that accumulated during thawing.

Crediting of Vegetable and Fruit Concentrates

Vegetable and fruit concentrates are now allowed to be credited on a single-strength reconstituted basis rather than on the actual volume as served.

How to Use Information on Concentrates

Method 1—Multiply the number of pounds of concentrate used by the creditable 1/4-cup servings per pound of concentrate.

EXAMPLE: A recipe calls for 4 lb 12 oz (4.75 lb) of tomato paste. Each pound of tomato paste provides 27.6 creditable servings of vegetable. Thus, 4.75 x 27.6 = 131.1. Therefore, the tomato paste in the recipe provides 131.1 creditable 1/4-cup servings of vegetable.

Method 2—Multiply the number of No. 10 cans of concentrate in the recipe by the number of creditable 1/4-cup servings provided by one No. 10 can of the concentrate.

EXAMPLE: Two No. 10 cans of tomato puree are used in a recipe. One No. 10 can of tomato puree provides 96 creditable 1/4-cup servings of vegetable. Thus, 2 x 96 = 192. Therefore, 192 creditable 1/4-cup servings would be provided by the tomato puree.

Remember: There is no need to count the water or other liquid used in the recipe.

Note: The volume of food served might be smaller because of the new crediting policy for concentrates. Plan your menus to allow enough food for the students in your school. The importance of adequate and recognizable amounts of fruits and vegetables must be considered in menu planning in order to ensure a well-balanced meal.

Factors Affecting Yields

Yield of vegetables and fruits varies according to the form of food you use. For example:

- Frozen vegetables usually yield more servings per pound than fresh vegetables since the frozen ones are cleaned, blanched, and ready to cook.

- Dehydrated vegetables and fruits yield more servings per pound than fresh, frozen, or canned because they gain weight and volume as they absorb water during soaking and cooking. Some dehydrated products, particularly fruits, continue to expand while cooling.

- The weight of canned vegetables and fruits varies due to different densities of the food. A No. 10 can yields an average of 12 to 13-2/3 cups, from 96 oz (6 lbs) to 117 oz (7 lbs 5 oz).

*NOTE: Yield figures for vegetables and fruits are for on-site preparation; they do **not** allow for losses that may occur in prepared products (both preportioned and bulk) during freezing, storage, heating, and serving.*

Instructions for Using Yield Data

The data on vegetables and fruits in the following table include yield information on *common types* and *customary portion sizes* of products that you can buy on the market as well as some USDA-donated (special purchase) products.

Column 1 **Food as purchased:** The individual foods are arranged in alphabetical order.

Column 2 **Purchase unit:** The purchase unit is specified as 1 can (generally No. 10, No. 2-1/2, or No. 303), 1 pound, or a package. You can use data for one purchase unit to determine how much you need for any number of servings.

Column 3 **Servings per purchase unit:** This column shows the number of servings of a given size from each purchase unit. Numbers in this column are sometimes rounded *down* in order to help ensure enough food for the number of servings.

Column 4 **Serving size or portion and contribution to the meal pattern:** The size of a serving or portion is given as a measure and/or weight or number of pieces. In most cases the serving size and contribution to the meal pattern are the same. When they differ, the contribution is shown in parentheses under the serving size.

Column 5 **Purchase units for 100 servings:** This column shows the number of purchase units you need for 100 servings. Numbers in this column are generally rounded *up* in order to help ensure enough food for the number of servings.

Column 6 **Additional yield information:** This column gives other information to help you calculate the amount of food you need to prepare meals. Keep in mind that yields for most fresh fruits and vegetables are based on the form as purchased from the market - whole, unpeeled, unchopped, etc. If you purchase the foods preprepared and ready to cook or use in your recipes, you need to convert to the as-purchased form used in this Buying Guide to obtain the correct yield. Use the yield information from column 6. Divide the quantity listed in the recipe (or as purchased) by the yield in column 6. This is the quantity of ready-to-cook food obtained from 1 pound as purchased. See page 13 for an example of calculations.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
VEGETABLES AND FRUITS					
APPLES Fresh	Pound	4.2	1 small raw apple (about ½ cup fruit)	23.4	1 lb AP = 0.91 lb ready-to-cook or serve raw with peel 1 small apple = approx. 2½ inch diameter (size 185-195)
		12.0	¼ cup raw fruit	8.3	1 medium apple approx. 2¾ inch diameter
		3.0	1 medium baked apple (about ½ cup cooked fruit)	33.4	
		11.4	¼ cup raw pared fruit	8.8	1 lb AP = 0.78 lb ready-to-cook or serve raw, pared
		6.8	¼ cup cooked pared unsweetened fruit	14.7	1 lb AP = 0.78 lb cooked pared
		5.8	¼ cup sieved unsweetened fruit	17.1	
Canned (slices, solid pack)	No.10 can (100 oz)	50.4	¼ cup fruit	2.0	1 No. 10 can = about 89 oz (11-7/8 cup) drained fruit
	No. 2½ can (20 oz)	10.0	¼ cup fruit	9.9	1 No. 2½ can = about 26 oz (11-7/8 cup) drained fruit
	Pound	8.0	¼ cup fruit	12.4	
Dehydrated (slices or rings, regular moisture)	Pound	21.1	¼ cup fruit (about 5 pieces)	4.8	1 lb dry = about 5¼ cup
		28.7	¼ cup cooked fruit	3.5	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
APPLESAUCE Canned (smooth or chunky)	No. 10 can (108 oz)	47.6	¼ cup fruit	2.1	1 No. 10 can = about 12 cup fruit
	No. 2½ can (29 oz)	12.8	¼ cup fruit	7.8	1 No. 2½ can = about 3-1/8 cup fruit
	No. 303 can (16 oz)	7.0	¼ cup fruit	14.2	1 No. 303 can = about 1¾ cup fruit
APRICOTS Fresh	Pound	11.9	1 medium raw apricot (about ¼ cup fruit)	8.4	
		10.8	¼ cup raw halves (¼ cup fruit)	9.3	1 lb AP = 0.93 lb ready-to-serve raw
Canned Unpeeled Whole (with pits)	No. 10 can (106 oz)	43.6	¼ cup fruit and juice	2.3	1 No. 10 can = about 53 oz (6-1/3 cup) drained pitted fruit
	No. 2 can (29 oz)	11.9	¼ cup fruit and juice	8.4	1 No. 2½ can = about 12.8 oz (1¾ cup) drained pitted fruit
	No. 303 can (16 oz)	6.5	¼ cup fruit and juice	15.2	1 No. 303 can = about 7 oz (7/8 cup) drained pitted fruit

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
APRICOTS—Continued					
Halves	No. 10 can (106 oz)	48.4	¼ cup fruit and juice	2.1	1 No. 10 can = about 62 oz (7-1/3 cup) drained fruit
	No. 2½ can (29 oz)	13.2	¼ cup fruit and juice	7.5	1 No. 2½ can = about 16 oz (1-7/8 cup) drained fruit
	No. 303 can (16 oz)	7.3	¼ cup fruit and juice	13.7	1 No. 303 can = about 8.9 oz (1 cup) drained fruit
		3.7	¼ cup heated drained fruit	26.8	
Peeled Whole (with pits)	No. 10 can (106 oz)	44.2	¼ cup fruit and juice	2.3	1 No. 10 can = about 52 oz (7¼ cup) drained pitted fruit
	No. 2½ can (29 oz)	12.1	¼ cup fruit and juice	8.2	1 No. 2½ can = about 12.4 oz (1¾ cup) drained pitted fruit
	No. 303 can (16 oz)	6.6	¼ cup fruit and juice	15.0	1 No. 303 can = about 6.9 oz (1 cup) drained pitted fruit
Slices	No. 10 can (106 oz)	45.7	¼ cup fruit and juice	2.2	1 No. 10 can = about 62 oz (7-2/3 cup) drained fruit
	No. 2½ can (29 oz)	12.5	¼ cup fruit and juice	8.0	1 No. 2½ can = about 17.2 oz (2 cup) drained fruit

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
APRICOTS Slices—Continued	No. 303 can (16 oz)	6.9	¼ cup fruit and juice	14.5	1 No. 303 can = about 8.9 oz (1-1/8 cup) drained fruit
Frozen (halves)	Pound	6.7	¼ cup cooked fruit and juice	14.9	
		4.9	¼ cup thawed drained fruit	20.3	
Dehydrated (halves, regular moisture)	Pound	11.3	9 medium dry halves (¼ cup fruit)	8.9	1 lb dry = about 2-7/8 cup or 100 halves
		23.4	¼ cup cooked fruit	4.3	
ASPARAGUS Fresh	Pound	4.8	about 3 cooked spears (¼ cup vegetable)	20.7	1 lb AP = 0.53 lb ready-to-cook
		4.8	¼ cup cooked cuts and tips (¼ cup vegetable)	20.7	1 lb AP = 0.50 lb cooked
Canned Spears	No. 5 squat (64 oz)	26.4	about 3 medium spears (¼ cup vegetable)	3.8	1 No. 5 can = about 38 oz (6-2/3 cup) drained vegetable
	Pound	6.6	¼ cup vegetable	15.2	Medium spear approx. ½ inch diameter at base
	No. 300 cyl (14.5 oz)	5.8	¼ cup vegetable	17.1	1 No. 300 cyl = about 8.2 oz (1½ cup) drained vegetable

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
ASPARAGUS—Continued					
Cuts and tips	No. 10 can (101 oz)	39.5	¼ cup vegetable	2.6	1 No. 10 can = about 58 oz (10 cup) drained vegetable
	Pound	6.2	¼ cup vegetable	16.0	
	No. 300 cyl (14.5 oz)	5.5	¼ cup vegetable	18.1	1 No. 300 cyl = about 8.2 oz (1½ cup) drained vegetable
Frozen					
Spears	Pound	10.7	about 3 cooked spears (¼ cup vegetable)	9.3	
Cuts and tips	Pound	8.1	¼ cup cooked vegetable	12.3	
AVOCADOS					
Fresh	Pound	8.2	¼ cup raw diced vegetable	12.1	1 lb AP = 0.67 lb ready-to-serve raw
		7.5	¼ cup raw sliced vegetable	13.3	
		5.1	¼ cup raw mashed vegetable	19.6	
BANANAS					
Fresh	Pound	3.2	1 small banana (about ½ cup fruit)	30.9	Institutional pack (150 per case)
		5.1	½ medium banana (about 3/8 cup fruit)	19.3	Medium is about 7–8 inch AP
		8.1	¼ cup raw sliced fruit	12.3	1 lb AP = 0.65 lb ready-to-serve raw
		5.2	¼ cup raw mashed fruit	19.2	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BANANAS—Continued					
Canned Mashed	No.10 can (116 oz)	50.9	¼ cup fruit	2.0	
	Pound	7.0	¼ cup fruit	14.3	
BEANS, BLACKEYE BEANS OR PEAS					
Fresh (shelled)	Pound	10.3	¼ cup cooked vegetable	9.7	1 lb in pod = 0.51 lb ready-to-cook
Canned (green)	No.10 can (105 oz)	43.0	¼ cup heated vegetable	2.4	1 No. 10 can = about 72 oz (11-3/8 cup) drained vegetable
	No. 303 can (16 oz)	6.5	¼ cup heated vegetable	15.3	1 No. 303 can = about 11 oz (1¾ cup) drained vegetable
Frozen	Pound	11.2	¼ cup cooked vegetable	8.9	
Dry	Pound	28.3	¼ cup cooked vegetable	3.6	1 lb dry = about 2¾ cup
BEANS, GARBANZO (CHICKPEAS)					
Canned	Pound	7.2	¼ cup vegetable	13.9	
	No. 300 can (15 oz)	6.7	¼ cup vegetable	14.8	1 No. 300 can = about 9.6 oz (1-2/3 cup) drained vegetable
Dry	Pound	24.6	¼ cup cooked vegetable	4.1	1 lb dry = about 2½ cup

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, GREAT NORTHERN Dry	Pound	25.5	¼ cup cooked vegetable	4.0	1 lb dry = about 2½ cup
BEANS, GREEN Fresh	Pound	11.1	¼ cup cooked vegetable	9.0	1 lb AP = 0.88 lb ready-to-cook
Canned Whole	No. 10 can (101 oz)	52.2	¼ cup vegetable	2.0	1 No. 10 can = about 58 oz (13 cup) drained vegetable
	No. 2½ can (28 oz)	14.4	¼ cup heated vegetable	7.0	1 No. 2½ can = about 16 oz (3-5/8 cup) drained vegetable
	Pound	8.2	¼ cup vegetable	12.1	
	No. 303 can (15.5 oz)	8.0	¼ cup vegetable	12.5	
Cut	No. 10 can (101 oz)	45.3	¼ cup heated vegetable	2.3	1 No. 10 can = about 60 oz (12-7/8 cup) drained vegetable
		51.1	¼ cup vegetable	2.0	
	No. 2½ can (28 oz)	12.5	¼ cup heated vegetable	8.0	1 No. 2½ can = about 16 oz (3½ cup) drained vegetable
		14.1	¼ cup vegetable	7.0	
	Pound	7.1	¼ cup heated vegetable	14.0	
		8.1	¼ cup vegetable	12.4	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, GREEN Cut—Continued	No. 303 can (15.5 oz)	6.9	¼ cup heated vegetable	14.4	1 No. 303 can = about 9.2 oz (2 cup) drained vegetable
		7.8	¼ cup vegetable	12.8	
French-style	No. 10 can (101 oz)	36.5	¼ cup heated vegetable	2.8	1 No. 10 can = about 59 oz (12 cup) drained vegetable
	No. 2½ can (28 oz)	10.1	¼ cup heated vegetable	9.9	1 No. 2½ can = about 16.2 oz (3¼ cup) drained vegetable
	Pound	5.8	¼ cup heated vegetable	17.3	
	No. 303 can (15.5 oz)	5.6	¼ cup heated vegetable	17.9	1 No. 303 can = about 8.7 oz (1¾ cup) drained vegetable
Frozen Cut	Pound	11.6	¼ cup cooked vegetable	8.7	
French-style	Pound	12.0	¼ cup cooked vegetable	8.3	
BEANS, KIDNEY Canned	No. 10 can (108 oz)	41.9	¼ cup heated vegetable	2.4	1 No. 10 can = about 72 oz (11-3/8 cup) drained vegetable
		45.5	¼ cup vegetable	2.2	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, KIDNEY —Continued	No. 2½ can (30 oz)	11.6	¼ cup heated vegetable	8.6	
		12.6	¼ cup vegetable	7.9	
	No. 303 can (16 oz)	6.2	¼ cup heated vegetable	16.1	1 No. 303 can = about 10.7 oz (1-2/3 cup) drained vegetable
		6.7	¼ cup vegetable	14.9	
Dry	Pound	24.8	¼ cup cooked vegetable	4.1	1 lb dry = about 2½ cup
BEANS, LIMA Fresh (shelled)	Pound	10.8	¼ cup cooked vegetable	9.3	1 lb in pod = 0.44 lb ready-to-cook
Canned (green)	No. 10 can (105 oz)	41.0	¼ cup heated vegetable	2.5	1 No. 10 can = about 72 oz (11¾ cup) drained vegetable
	No. 2½ can (40 oz)	15.7	¼ cup heated vegetable	6.4	1 No. 2½ can = about 27 oz (4½ cup) drained vegetable
	No. 303 can (16 oz)	6.2	¼ cup heated vegetable	16.0	1 No. 303 can = about 11 oz (1¾ cup) drained vegetable
Frozen Baby	Pound	10.9	¼ cup cooked vegetable	9.2	
Fordhook	Pound	11.1	¼ cup cooked vegetable	9.0	
Dry Baby	Pound	23.4	¼ cup cooked vegetable	4.3	1 lb dry = about 2-3/8 cup
Fordhook	Pound	27.0	¼ cup cooked vegetable	3.7	1 lb dry = about 2-5/8 cup

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, MUNG					
Dry	Pound	28.1	¼ cup cooked vegetable	3.6	1 lb dry = about 2¼ cup
BEANS, NAVY (PEA)					
Dry	Pound	23.9	¼ cup cooked vegetable	4.2	1 lb dry = about 2¼ cup
BEANS, PINTO					
Canned	No. 10 can (108 oz)	43.3	¼ cup heated vegetable	2.4	1 No. 10 can = about 92 oz (11½ cup) drained vegetable
	No. 303 can (16 oz)	6.4	¼ cup heated vegetable	15.6	
Dry	Pound	24.9	¼ cup cooked vegetable	4.1	1 lb dry = about 2-3/8 cup
BEANS, SOY					
Fresh (shelled)	Pound	10.7	¼ cup cooked vegetable	9.4	1 lb in pod = about 0.65 lb (1¾ cup) blanched, shelled beans
Canned	Pound	7.3	¼ cup heated vegetable	13.7	
Dry	Pound	25.9	¼ cup cooked vegetable	3.9	1 lb dry = about 2½ cup
BEANS, WAX					
Fresh	Pound	9.4	¼ cup cooked vegetable	10.7	1 lb AP = 0.88 lb ready-to-cook
Canned	No. 10 can (101 oz)	46.8	¼ cup heated vegetable	2.2	1 No. 10 can = about 60 oz (13 cup) drained vegetable
		51.9	¼ cup vegetable	2.0	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEANS, WAX —Continued	No. 2½ can (28 oz)	12.9	¼ cup heated vegetable	7.9	1 No. 2½ can = about 16 oz (3½ cup) drained vegetable
		14.0	¼ cup vegetable	7.2	
	Pound	7.4	¼ cup heated vegetable	13.5	
		8.1	¼ cup vegetable	12.3	
	No. 303 can (15.5 oz)	7.1	¼ cup heated vegetable	14.0	1 No. 303 can = about 9.2 oz (2 cup) drained vegetable
		7.7	¼ cup vegetable	17.9	
BEAN SPROUTS Fresh Alfalfa	Pound	39.9	¼ cup raw sprouts (¼ cup vegetable)	2.6	1 lb AP = 1.21 lb ready-to-serve raw
Mung	Pound	26.2	¼ cup raw sprouts (¼ cup vegetable)	3.9	
		14.6	¼ cup parboiled vegetable	6.9	1 lb AP = 0.89 lb parboiled
Soybean	Pound	17.2	¼ cup parboiled vegetable	5.8	1 lb AP = 0.95 lb parboiled
Canned	No. 10 can (102 oz)	39.6	¼ cup heated vegetable	2.6	1 No. 10 can = about 53 oz (11¾ cup) drained vegetable
		46.9	¼ cup vegetable	2.2	
	Pound	6.2	¼ cup heated vegetable	16.1	
		7.3	¼ cup vegetable	13.6	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEET GREENS Fresh (untrimmed)	Pound	3.5	¼ cup cooked vegetable	28.6	1 lb AP = 0.48 lb ready-to-cook
BEETS Fresh (without tops)	Pound	11.6	¼ cup raw pared sticks (¼ cup vegetable)	8.6	1 lb AP = 0.77 lb pared
		7.6	¼ cup cooked diced vegetable	13.1	
		7.7	¼ cup cooked sliced vegetable	13.0	1 lb AP = 0.73 lb cooked slices
Canned Diced	No. 10 can (104 oz)	47.6	¼ cup heated vegetable	2.1	1 No. 10 can plain or pickled beets = about 72 oz (13-3/8 cup) drained vegetable
		53.5	¼ cup vegetable	1.9	
	No. 303 can (16 oz)	7.0	¼ cup heated vegetable	14.1	1 No. 303 can = about 10.5 oz (2 cup) drained vegetable
		7.8	¼ cup vegetable	12.7	
Sliced	No. 10 can (104 oz)	42.0	¼ cup heated vegetable	2.4	1 No. 10 can plain or pickled beets about 68 oz (11 cup) drained vegetable
		43.5	¼ cup vegetable	2.3	
	No. 303 can (16 oz)	6.3	¼ cup heated vegetable	15.8	1 No. 303 can = about 10.2 oz (1-2/3 cup) drained vegetable
		6.6	¼ cup vegetable	15.2	

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BEETS – Continued Whole, baby beets	No. 10 can (104 oz)	48.2	¼ cup vegetable	2.1	1 No. 10 can = about 68 oz (12-1/8 cup) drained vegetable
	No. 303 can (16 oz)	7.0	¼ cup vegetable	14.2	1 No. 303 can = about 10 oz (1¾ cup) drained vegetable
BLACKBERRIES, BOYSENBERRIES Fresh	Quart (20 oz)	14.9	¼ cup raw berries (¼ cup fruit)	6.8	1 qt AP = about 1.2 lb (3¾ cup) ready-to-serve raw
	Pound	11.9	¼ cup raw berries (¼ cup fruit)	8.4	1 lb AP = 0.96 lb ready-to-serve raw
Canned	No. 10 can (103 oz)	47.8	¼ cup fruit and juice	2.1	1 No. 10 can = about 66 oz (10-2/3 cup) drained fruit
	No. 303 can (16 oz)	7.4	¼ cup fruit and juice	13.5	1 No. 303 can = about 9.2 oz (1½ cup) drained fruit
Frozen	Pound	8.0	¼ cup cooked fruit, sugar added	12.4	
		9.0	¼ cup thawed fruit, sugar added	11.2	
BLUEBERRIES Fresh	Pint (14¼ oz)	10.7	¼ cup raw berries (¼ cup fruit)	9.3	1 pt AP = about 0.87 lb (2⅔ cup) ready-to-serve raw
	Pound	11.9	¼ cup raw berries (¼ cup fruit)	8.4	1 lb AP = 0.96 lb ready-to-serve raw

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BLUEBERRIES – Continued Canned	No. 10 can (105 oz)	47.6	¼ cup fruit and juice	2.1	1 No. 10 can = about 55 oz (9¼ cup) drained fruit
	Pound	7.2	¼ cup fruit and juice	13.8	
	No. 300 can (15 oz)	6.8	¼ cup fruit and juice	14.7	1 No. 300 can = about 8.2 oz (1-3/8 cup) drained fruit
Frozen	Pound	11.7	¼ cup fruit, unsweetened, thawed	8.5	
		7.8	¼ cup cooked fruit, sugar added	12.7	
BROCCOLI Fresh	Pound	9.8	¼ cup raw spears (¼ cup vegetable)	10.3	1 lb AP = 0.81 lb ready-to-cook
		9.4	¼ cup cooked spears (¼ cup vegetable)	10.6	1 medium spear = about ¼ cup
		10.2	¼ cup cooked cuts (¼ cup vegetable)	9.8	
Frozen Spears, cut or chopped	Pound	9.6	¼ cup cooked vegetable	10.4	
BRUSSELS SPROUTS Fresh	Pound	8.5	¼ cup cooked vegetable	11.7	1 lb AP = 0.76 lb ready-to-cook
Frozen	Pound	10.4	¼ cup cooked vegetable	9.6	
CABBAGE Fresh	Pound	17.7	¼ cup raw chopped vegetable	5.7	1 lb AP = 0.87 lb ready-to-cook or serve raw

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CABBAGE – Continued					
		11.2	¼ cup raw chopped vegetable with dressing	9.0	
		26.4	¼ cup raw shredded vegetable	3.8	
		13.8	¼ cup cooked shredded vegetable	7.3	1 lb AP = 0.69 lb ready-to-cook shredded
		8.4	¼ cup cooked vegetable wedges	11.8	1 lb AP = 0.90 lb ready-to-cook wedges
CABBAGE, CELERY OR CHINESE Fresh	Pound	26.3	¼ cup raw vegetable pieces	3.8	1 lb AP = 0.93 lb ready-to-serve
		10.6	¼ cup cooked vegetable strips	9.4	
CABBAGE, RED Fresh	Pound	13.0	¼ cup raw chopped vegetable	7.7	1 lb AP = 0.64 lb ready-to-cook or serve raw
		24.6	¼ cup raw shredded vegetable	4.1	1 lb AP = 0.83 lb ready-to-cook or serve raw
		13.3	¼ cup cooked shredded vegetable	7.5	
CANTALOUPE Fresh	Melon (27 oz)	4.0	¼ small melon (about ½ cup fruit)	25.0	Size 36 = about 5½ inches diameter
	Pound	5.8	¼ cup cubes or diced fruit	17.2	1 lb AP = 0.52 lb ready-to-serve raw

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CANTALOUPE —Continued					
Frozen (melon balls)					
In syrup	Pound	7.8	¼ cup fruit and juice	12.8	
Unsweetened	Pound	8.7	¼ cup fruit	11.5	1 lb = about 35 balls
CARROTS					
Fresh (without tops)	Pound	10.3	¼ cup raw vegetable strips (about 6 strips—4 × ½ inch)	9.7	1 lb AP = 0.70 lb ready-to-cook or serve raw
		10.6	¼ cup chopped vegetable	9.5	
		14.4	¼ cup raw shredded vegetable	7.0	
		8.1	¼ cup raw shredded vegetable with dressing	12.3	
		9.3	¼ cup raw vegetable slices	10.7	
		8.4	¼ cup cooked vegetable slices	11.9	1 lb AP = 0.60 lb cooked
Canned					
Diced	No. 10 can (105 oz)	48.1	¼ cup heated vegetable	2.1	1 No. 10 can = 72 oz drained vegetable
	No. 303 can (16 oz)	7.3	¼ cup heated vegetable	13.7	1 No. 303 can = about 10.5 oz drained vegetable
Sliced	No. 10 can (105 oz)	47.4	¼ cup heated vegetable	2.2	1 No. 10 can = 68 oz drained vegetable
	No. 303 can (16 oz)	7.2	¼ cup heated vegetable	13.9	1 No. 303 can = about 10 oz drained vegetable

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CARROTS – Continued					
Frozen					
Sliced	Pound	10.5	¼ cup cooked vegetable	9.5	
Whole	Pound	10.9	¼ cup cooked vegetable	9.2	
CAULIFLOWER					
Fresh (trimmed)	Pound	12.5	¼ cup raw sliced vegetable	8.0	1 lb AP = 0.62 lb ready-to-cook or serve raw
		12.3	¼ cup raw vegetable florets	8.1	1 medium head = about 6 cup florets
		8.8	¼ cup cooked vegetable florets	11.3	1 lb AP = 0.61 lb cooked
Frozen	Pound	9.2	¼ cup cooked vegetable	10.9	
CELERY					
Fresh (trimmed)	Pound	12.2	¼ cup raw vegetable sticks or strips (about 4 sticks 3 × ¾ inch)	8.2	
		12.5	¼ cup raw chopped vegetable	8.0	1 lb AP = 0.83 lb ready-to-cook or serve raw
		12.3	¼ cup raw diced vegetable	8.1	
		8.7	¼ cup cooked diced vegetable	11.4	1 lb AP = 0.74 lb cooked
		8.1	¼ cup cooked sliced vegetable	12.4	
Canned, Cooked (diced)	No. 10 can (105 oz)	28.1	¼ cup heated vegetable	3.6	1 No. 10 can = about 51 oz (8½ cup) drained vegetable
	Pound	4.2	¼ cup heated vegetable	23.4	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CELERY—Continued					
Canned, Salad (diced)	No. 10 can (105 oz)	57.4	¼ cup vegetable	1.8	1 No. 10 can = about 72 oz (14¼ cup) drained vegetable
		54.3	¼ cup heated vegetable	1.9	
	Pound	8.7	¼ cup vegetable	11.5	
		8.2	¼ cup heated vegetable	12.1	
CHARD, SWISS					
Fresh (untrimmed)	Pound	6.3	¼ cup cooked vegetable	15.8	1 lb AP = 0.92 lb ready-to-cook
CHERRIES					
Fresh					
Sweet	Pound	8.5	¼ cup raw pitted cherries, about 7 whole (¼ cup fruit)	11.8	1 lb AP = 0.98 lb ready-to-serve with pits or 0.84 lb pitted
Red, tart	Pound	6.4	¼ cup cooked pitted fruit, sugar added	15.5	1 lb AP = 0.87 lb pitted uncooked
Canned Sweet (with pits)	No. 10 can (106 oz)	45.8	¼ cup fruit and juice	2.2	1 No. 10 can = about 59 oz (9¼ cup) drained pitted fruit
	No. 2½ can (29 oz)	12.5	¼ cup fruit and juice	8.0	1 No. 2½ can = about 17.6 oz (2-3/8 cup) drained fruit
	No. 303 can (16 oz)	6.9	¼ cup fruit, pitted, and juice	14.5	1 No. 303 can = about 8.4 oz (1-1/3 cup) drained pitted fruit

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CHERRIES—Continued					
Red, tart (pitted)	No. 10 can (103 oz)	50.3	¼ cup cooked fruit and juice, sugar added	2.0	1 No. 10 can = about 72 oz (11½ cup) drained fruit
	No. 2½ can (29 oz)	14.1	¼ cup cooked fruit and juice, sugar added	7.1	
	No. 303 can (16 oz)	7.8	¼ cup cooked fruit and juice, sugar added	12.8	1 No. 303 can = about 10.7 oz (1¾ cup) drained fruit
Maraschino					
Large	Pound	6.2	¼ cup fruit	16.1	
Small	Pound	5.7	¼ cup fruit	17.4	
Frozen (red, tart, pitted)	Pound	5.9	¼ cup cooked fruit	16.8	
		7.0	¼ cup fruit, thawed	14.3	1 lb AP = about 0.70 lb (1½ cup) thawed fruit, drained
CHICORY					
Fresh	Pound	47.4	¼ cup raw vegetable pieces	2.2	1 lb AP = 0.89 lb ready-to-serve raw
		31.6	¼ cup raw vegetable pieces with dressing	3.2	
COLLARDS					
Fresh (untrimmed)	Pound	6.2	¼ cup cooked vegetable leaves	16.2	1 lb AP = 0.57 lb ready-to-cook
		10.5	¼ cup cooked vegetable leaves and stems	9.6	1 lb AP = 0.74 lb ready-to-cook

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
COLLARDS—Continued					
Canned	No. 10 can (98 oz)	24.7	¼ cup heated vegetable	4.1	1 No. 10 can = about 58 oz drained vegetable
	No. 2½ can (27 oz)	6.8	¼ cup heated vegetable	14.7	1 No. 2½ can = about 17.6 oz (3 cup) drained vegetable
	No. 303 can (15 oz)	3.7	¼ cup heated vegetable	26.4	1 No. 303 can = about 9.6 oz (1-2/3 cup) drained vegetable
Frozen (chopped or whole leaf)	Pound	9.2	¼ cup cooked vegetable	10.8	
CORN					
Fresh (with husks)	Pound	1.8	1 medium ear (about ½ cup cooked vegetable)	53.2	1 lb AP = 0.33 lb edible portion cooked
		3.7	¼ cup cooked vegetable	27.0	
(without husks)	Pound	2.5	1 medium ear (about ½ cup cooked vegetable)	38.8	
		5.6	¼ cup cooked vegetable	17.6	1 lb AP = 0.55 lb raw cut corn
Canned Cream style	No.10 can (106 oz)	43.2	¼ cup heated vegetable	2.4	
	No. 303 can (16 oz)	6.5	¼ cup heated vegetable	15.3	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CORN — Continued					
Whole kernel Vacuum pack	No. 10 can (75 oz)	41.7	¼ cup heated vegetable	2.4	1 No. 10 can = about 63 oz (10½ cup) vegetable
	Pound	8.9	¼ cup heated vegetable	11.3	
	No. 2 vaccum (12 oz)	6.6	¼ cup heated vegetable	15.0	1 No. 2 can = about 10 oz (1-2/3 cup) drained vegetable
Liquid pack	No. 10 can (106 oz)	46.4	¼ cup heated vegetable	2.2	1 No. 10 can = about 70 oz (11½ cup) drained vegetable
	No. 303 can (16 oz)	6.7	¼ cup heated vegetable	14.8	1 No. 303 can = about 10.5 oz (1¾ cup) drained vegetable
Frozen (whole kernel)	Pound	11.0	¼ cup cooked vegetable	9.1	
CRANBERRIES Fresh	Pound	15.6	¼ cup raw chopped fruit	6.4	1 lb AP = 0.95 lb ready-to-cook or serve raw
		11.1	¼ cup cooked fruit, sugar added, whole berry	9.0	
		9.9	¼ cup cooked fruit, sugar added, strained	10.1	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CRANBERRY RELISH OR SAUCE Canned Whole	No. 10 can (117 oz)	48.0	¼ cup fruit	2.1	
	No. 300 can (16 oz)	6.7	¼ cup fruit	15.0	
Strained	No. 10 can (117 oz)	47.9	¼ cup fruit	2.1	
	No. 300 can (16 oz)	6.5	¼ cup fruit	15.3	
CUCUMBERS Fresh	Pound	12.4	¼ cup unpared sliced vegetable	8.1	1 lb AP = 0.84 lb ready-to-serve raw, pared
		10.5	¼ cup pared diced or sliced vegetable	9.6	
CURRANTS Dehydrated	Pound	13.8	¼ cup dry fruit	7.3	1 lb dry = about 3½ cup
DATES Dehydrated Regular moisture (pitted)	Pound	11.1	¼ cup whole fruit	9.0	1 lb dry = about 2¾ cup
		10.6	¼ cup chopped fruit	9.5	1 lb dry = about 2⅔ cup
Moisturized (with pits)	Pound	10.0	¼ cup pitted fruit (about 5 dates)	10.0	
EGGPLANT Fresh	Pound	6.7	¼ cup cooked vegetable cubes	14.8	1 lb AP = 0.81 lb ready-to-cook

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
ENDIVE, ESCAROLE Fresh	Pound	19.9	¼ cup vegetable	5.1	1 lb AP = 0.78 lb ready-to-serve raw
FIGS Fresh	Pound	4.0	3 small raw figs (about ½ cup fruit)	25.0	
Canned	No. 10 can (110 oz)	49.3	¼ cup fruit and juice	2.1	1 No. 10 can = about 64 oz (8¾ cup) drained fruit
	No. 2½ can (30 oz)	13.4	¼ cup fruit and juice	7.5	1 No. 2½ can = about 18.6 oz (2½ cup) drained fruit
	No. 303 can (17 oz)	7.6	¼ cup fruit and juice	13.2	1 No. 303 can = about 9.9 oz (1-1/3 cup) drained fruit
	Pound	7.1	¼ cup fruit and juice	14.0	
Dehydrated	Pound	10.4	¼ cup dry fruit (about 3 figs)	9.6	1 lb dry = about 2-5/8 cup or 30 figs
		13.4	¼ cup cooked fruit and juice	7.5	
FRUIT, MIXED Canned Fruit cocktail (peaches, pears, pineapple, grapes, cherries)	No. 10 can (106 oz)	46.9	¼ cup fruit and juice	2.2	1 No. 10 can = about 69 oz (9¼ cup) drained fruit
	No. 2½ can (29 oz)	12.8	¼ cup fruit and juice	7.8	1 No. 2½ can = about 18.3 oz (2-3/8 cup) drained fruit
	No. 303 can (16 oz)	7.0	¼ cup fruit and juice	14.2	1 No. 303 can = about 10.3 oz (1-2/3 cup) drained fruit

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
FRUIT,MIXED – Continued					
Fruit for salad (apricots, peaches, pears, pineapple, cherries, grapes)	No. 10 can (106 oz)	48.6	¼ cup fruit and juice	2.1	1 No. 10 can = about 62 oz (8½ cup) drained fruit
	No. 2½ can (29 oz)	13.3	¼ cup fruit and juice	7.6	1 No. 2½ can = about 16.9 oz (2-1/3 cup) drained fruit
	No. 303 can (16 oz)	7.3	¼ cup fruit and juice	13.7	1 No. 303 can = about 9.3 oz (1¼ cup) drained fruit
Dehydrated (regular moisture)	Pound	9.7	¼ cup dry fruit	10.3	
GRAPEFRUIT					
Fresh	Pound	2.0	½ fruit, large (about ½ cup fruit and juice)	50.0	1 lb AP = 0.52 lb ready-to-serve raw
		4.1	¼ cup fruit sections and juice	24.0	
		3.5	¼ cup fruit juice	28.2	1 lb AP = 0.48 lb (7/8 cup) juice
GRAPEFRUIT AND ORANGE SECTIONS					
Chilled	Gallon (136 oz)	63.9	¼ cup fruit and juice	1.6	1 gal = about 91 oz (13¼ cup) drained fruit
	Pound	7.5	¼ cup fruit and juice	13.3	
Canned	No. 3 Cyl (50 oz)	22.6	¼ cup fruit and juice	4.5	1 No. 3 Cyl = about 26 oz (3½ cup) drained fruit
	No. 303 can (16 oz)	7.2	¼ cup fruit and juice	13.8	1 No. 303 can = about 8.5 oz (1-1/8 cup) drained fruit

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
GRAPEFRUIT SECTIONS					
Canned	No. 3 Cyl (50 oz)	23.3	¼ cup fruit and juice	4.3	1 No. 3 Cyl = about 26 oz (3-1/8 cup) drained fruit
	No. 303 can (16 oz)	7.4	¼ cup fruit and juice	13.4	1 No. 303 can = about 8.5 oz (1 cup) drained fruit
Frozen	Pound	7.5	¼ cup fruit and juice	13.3	1 lb AP = about 0.55 lb (1-1/8 cup) drained thawed fruit
GRAPES					
Fresh					
Seedless	Pound	10.0	¼ cup raw halves—about 9 grapes (¼ cup fruit)	10.0	1 lb AP = 0.97 lb ready-to-serve raw
With seeds	Pound	10.1	¼ cup seeded halves—about 6 grapes (¼ cup fruit)	9.9	1 lb AP = 0.89 lb raw seeded
Canned Seedless	No. 10 can (108 oz)	50.0	¼ cup fruit and juice	2.0	1 No. 10 can = about 67 oz (10 cup) drained fruit
	No. 2½ can (30 oz)	13.8	¼ cup fruit and juice	7.2	1 No. 2½ can = about 18.6 oz (2¾ cup) drained fruit
	No. 303 can (16 oz)	7.4	¼ cup fruit and juice	13.5	1 No. 303 can = about 9.9 oz (1½ cup) drained fruit

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
HONEYDEW MELON					
Fresh	Pound	4.9	¼ cup fruit cubes	20.4	1 lb AP = 0.46 lb ready-to-serve raw
Frozen	Pound	8.7	¼ cup melon balls (¼ cup fruit)	11.5	1 lb = about 35 balls
KALE					
Fresh (untrimmed)	Pound	11.8	¼ cup cooked vegetable	8.5	1 lb AP = 0.67 lb ready-to-cook
Canned	No. 10 can (98 oz)	40.2	¼ cup vegetable	2.5	1 No. 10 can = 58 oz drained vegetable
	No. 2½ can (27 oz)	11.0	¼ cup vegetable	9.1	1 No. 2½ can = about 15.9 oz (2¾ cup) drained vegetable
	Pound	6.5	¼ cup vegetable	15.3	
	No. 303 can (15 oz)	6.1	¼ cup vegetable	16.3	1 No. 303 can = about 9.4 oz (1-5/8 cup) drained vegetable
Frozen					
Chopped	Pound	12.1	¼ cup cooked vegetable	8.3	
Whole leaf	Pound	9.5	¼ cup cooked vegetable	10.6	
KOHLRABI					
Fresh (untrimmed)	Pound	5.1	¼ cup cooked vegetable pieces	19.6	1 lb AP = 0.45 lb ready-to-cook, pared

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
LEMONS Fresh	Pound	3.1	¼ cup fruit juice	32.1	1 lb AP = about 0.43 lb (¾ cup juice)
LETTUCE, HEAD Fresh	Pound	22.2	¼ cup shredded vegetable	4.5	1 lb AP = 0.76 lb ready-to-serve
		20.8	¼ cup raw vegetable pieces	4.8	
		13.9	¼ cup raw vegetable pieces with dressing	7.2	
LETTUCE, LEAF Fresh	Pound	21.7	¼ cup raw vegetable pieces	4.6	1 lb AP = 0.66 lb ready-to-serve raw
		14.5	¼ cup raw vegetable pieces with dressing	6.9	
LETTUCE, ROMAINE Fresh	Pound	31.3	¼ cup raw vegetable pieces	3.2	1 lb AP = 0.64 lb ready-to-serve raw
		20.9	¼ cup raw vegetable pieces with dressing	4.8	
LIMES Fresh	Pound	3.5	¼ cup fruit juice	28.2	1 lb AP = about 0.47 lb (7/8 cup) juice
MANGOES Fresh	Pound	7.6	¼ cup cubed or sliced fruit	13.1	1 lb AP = 0.69 lb ready-to-serve raw
MUSHROOMS Fresh	Pound	18.7	¼ cup raw sliced vegetable	5.4	1 lb AP = 0.98 lb ready-to-cook
	Pound	8.3	¼ cup cooked sliced vegetable	12.0	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
MUSHROOMS – Continued Canned	No. 10 can (68 oz drained weight)	49.4	¼ cup vegetable	2.1	1 No. 10 can = 12-1/3 cup drained vegetable
	Pound (drained weight)	11.6	¼ cup vegetable	8.6	
	No. 300 can (8 oz drained weight)	5.8	¼ cup vegetable	17.2	1 No. 300 can = about 1½ cup vegetable
MUSTARD GREENS Fresh (untrimmed)	Pound	13.2	¼ cup cooked vegetable	7.6	1 lb AP = 0.93 lb ready-to-cook
Canned	No. 10 can (98 oz)	42.8	¼ cup vegetable	2.4	1 No. 10 can = 58 oz drained vegetable
	No. 2½ can (27 oz)	11.8	¼ cup vegetable	8.5	1 No. 2½ can = about 15.9 oz (2¾ cup) drained vegetable
	No. 303 can (16 oz)	7.0	¼ cup vegetable	14.3	1 No. 303 can = about 9.4 oz (1-2/3 cup) drained vegetable
Frozen Chopped	Pound	11.6	¼ cup cooked vegetable	8.6	
Leaf	Pound	12.3	¼ cup cooked vegetable	8.1	

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
NECTARINES Fresh	Pound	3.8	1 small raw nectarine (about ½ cup fruit)	26.1	1 small = 2- to 2-1/8-inch diameter, size 96
	Pound	2.8	1 medium raw nectarine (about ⅔ cup fruit)	35.3	1 medium = approx. 2½ inch diameter size 70 and 72
		8.6	¼ cup raw halves (¼ cup fruit)	11.6	1 lb AP = 0.91 lb ready-to-serve raw
OKRA Fresh	Pound	9.7	¼ cup cooked whole vegetable	10.3	1 lb AP = 0.87 lb ready-to-cook
		9.0	¼ cup cooked sliced vegetable	11.1	
Canned Cut	No. 10 can (99 oz)	38.8	¼ cup heated vegetable	2.6	1 No. 10 can = about 60 oz (10-1/8 cup) drained vegetable
	Pound	6.2	¼ cup heated vegetable	16.0	
	No. 303 can (15.5 oz)	6.0	¼ cup heated vegetable	16.5	1 No. 303 can = about 10.4 oz (1¾ cup) drained vegetable
Frozen Cut	Pound	9.1	¼ cup cooked vegetable	11.0	
Whole	Pound	11.8	¼ cup cooked vegetable	8.5	
OLIVES Canned Green Stuffed	No. 10 can (72 oz drained weight)	55.5	¼ cup vegetable	1.8	

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1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
OLIVES Canned Green Stuffed — Continued	Pound (drained weight)	12.3	¼ cup vegetable	8.1	
Whole (pitted)	Gallon	60.4	¼ cup whole vegetable (about 14 olives)	1.7	1 gal = about 65 oz drained or 848 olives
	Pound (drained weight)	14.8	¼ cup vegetable	6.8	
Ripe Whole, large size (pitted)	No. 10 can (50 oz drained weight)	48.0	¼ cup whole vegetable (about 8 olives)	2.1	1 No. 10 can = about 380 olives
		42.0	¼ cup chopped vegetable	2.4	
	Pound (drained weight)	15.3	¼ cup whole vegetable	6.5	
		12.9	¼ cup chopped vegetable	7.8	
ONIONS, GREEN Fresh	Pound	15.0	¼ cup raw vegetable, with tops	6.7	1 lb AP = 0.83 lb ready-to-serve, raw, with tops
		13.6	¼ cup cooked with tops	7.3	
	Pound	6.7	¼ cup raw chopped or sliced vegetable without tops	14.8	1 lb AP = 0.37 lb ready-to-serve raw, without tops
ONIONS, MATURE Fresh	Pound	9.3	¼ cup raw chopped vegetable	10.8	1 lb AP = 0.88 lb ready-to-cook or serve raw
		14.2	¼ cup raw sliced vegetable	7.0	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
ONIONS, MATURE Fresh—Continued					
		7.9	¼ cup cooked vegetable pieces	12.7	1 lb AP = 0.78 lb cooked
		7.1	[illegible] cup cooked whole vegetable	14.1	
Canned	No.10 can (101 oz)	31.2	¼ cup heated drained vegetable	3.2	1 No. 10 can = 61 oz drained vegetable
	Pound	4.9	¼ cup heated drained vegetable	20.2	
	No. 303 can (15.75 oz)	4.8	¼ cup heated drained vegetable	20.5	1 No. 303 can = about 9.5 oz (1-3/8 cup) drained vegetable
Frozen (chopped)	Pound	13.2	¼ cup thawed vegetable	7.6	
	Pound	7.2	¼ cup cooked vegetable	13.9	
ORANGES Fresh					
Size 113 (California, Arizona)	Pound	2.8	1 orange (about 5/8 cup fruit and juice)	35.5	
Size 125 (Florida, Texas)	Pound	2.9	1 orange (about 5/8 cup fruit and juice)	34.4	
Size 138 (California, Arizona)	Pound	3.4	1 orange (about ½ cup fruit and juice)	28.9	
All sizes	Pound	7.2	¼ cup fruit sections with membrane and juice	13.8	1 lb AP = 0.71 lb ready-to-serve
		3.5	¼ cup fruit sections drained, no membrane	28.6	1 lb AP = 0.40 lb ready-to-serve
		3.6	¼ cup fruit juice	27.6	1 lb AP = 0.48 lb (7/8 cup) juice

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
ORANGES – Continued Canned Mandarin	Pound	7.3	¼ cup fruit and juice	13.7	
PAPAYA Fresh	Pound	8.6	¼ cup cubed fruit	11.6	1 lb AP = about 0.67 lb ready-to-serve
		5.1	¼ cup mashed fruit	19.5	
PARSLEY Fresh	Pound	83.4	¼ cup chopped vegetable	1.2	1 lb AP = 0.92 lb ready-to-serve raw
PARSNIPS Fresh	Pound	8.1	¼ cup cooked vegetable pieces	12.3	1 lb AP = 0.83 lb ready-to-cook
		7.2	¼ cup cooked mashed vegetable	13.8	
PEACHES Fresh	Pound	3.7	1 small raw peach (about ½ cup fruit)	26.7	1 small = approx. 2-1/8 inch diameter (size 84)
		2.7	1 medium raw peach (about ¾ cup fruit)	36.2	1 medium = approx. 2½ inch diameter (size 60 and 64)
		5.1	¼ cup raw diced fruit	19.3	1 lb AP = 0.76 lb ready-to-cook or serve raw
		7.7	¼ cup raw sliced fruit	12.9	
		7.4	¼ cup cooked sliced fruit, sugar added	13.5	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEACHES Canned Diced Cling	No. 10 can (106 oz)	48.7	¼ cup fruit and juice	2.1	1 No. 10 can = about 70 oz (9-1/8 cup) drained fruit
	No. 2½ can (29 oz)	13.3	¼ cup fruit and juice	7.5	1 No. 2½ can = about 17.5 oz (2¼ cup) drained fruit
	No. 303 can (16 oz)	7.4	¼ cup fruit and juice	13.6	1 No. 303 can = about 9.8 oz (1¼ cup) drained fruit
Halves Cling or Freestone	No. 10 can (106 oz)	47.1	½ peach with juice (¼ cup fruit and juice)	2.2	1 No. 10 can = about 64 oz (8-1/8 cup) drained clings or about 60 oz (6-2/3 cup) drained freestones
	No. 2½ can (29 oz)	12.9	¼ cup fruit and juice	7.8	1 No. 2½ can = about 17 oz (2-1/8 cup) drained clings or about 15.7 oz (2 cup) drained freestones

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEACHES Canned					
Halves Cling or Freestone —Continued	No. 303 can (16 oz)	7.1	¼ cup fruit and juice	14.1	1 No. 303 can = about 9.5 oz (1¼ cup) drained clings or about 8.9 oz (1-1/8 cup) drained freestones 1 can = about 60 oz (6⅔ cup) drained fruit
Quarters Cling	No. 10 can (106 oz)	48.5	¼ cup fruit and juice	2.1	1 No. 10 can = about 71 oz (9-7/8 cup) drained fruit
Slices Cling or Freestone	No. 10 can (106 oz)	47.5	¼ cup fruit and juice	2.1	1 No. 10 can = about 66 oz (7½ cup) drained clings or about 60 oz (6¾ cup) drained freestones
	No. 2½ can (29 oz)	13.0	¼ cup fruit and juice	7.7	1 No. 2½ can = about 17.1 oz (2-1/8 cup) drained clings or about 15.7 oz (2 cup) drained freestones

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEACHES					
Canned					
Slices					
Cling or Freestone —Continued	No. 303 can (16 oz)	7.1	¼ cup fruit and juice	14.0	1 No. 303 can = about 9.5 oz (1¼ cup) drained clings or about 8.9 oz (1-1/8 cup) drained freestones
Whole spiced	Pound	2.7	⅓ cup whole fruit—2 small (about 1/4 cup pitted fruit)	37.0	1 lb AP = 0.34 lb drained pitted fruit
Frozen (sliced)	Pound	7.3	¼ cup fruit, thawed	13.7	
		7.1	¼ cup cooked fruit	14.0	
Dehydrated Regular moisture (halves)	Pound	10.8	About 4 halves (¼ cup dry fruit)	9.3	1 lb dry = about 32 halves (2⅔ cup)
		22.9	¼ cup cooked fruit and juice	4.4	
PEARS					
Fresh	Pound	4.1	1 small raw pear - size 150 (about ½ cup fruit)	24.1	1 lb AP = 0.92 lb ready-to-cook or serve raw unpared
		3.3	1 medium raw pear - size 120 (about ¾ cup fruit)	30.0	
		7.1	¼ cup raw pared, cubed fruit	14.0	1 lb AP = 0.78 lb ready-to-cook or serve raw, pared

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEARS Fresh-Continued	Pound	7.9	¼ cup raw pared, sliced fruit	12.7	
		5.7	¼ cup cooked pared halves, sugar added (¼ cup fruit)	17.4	
Canned Halves	No. 10 can (105 oz)	52.0	½ pear with juice (¼ cup fruit and juice)	2.0	1 No. 10 can = about 62 oz (7¾ cup) drained fruit
	No. 2½ can (29 oz)	14.3	½ pear with juice (¼ cup fruit and juice)	7.0	1 No. 2½ can = about 15.8 oz (2 cup) drained fruit
	No. 303 can (16 oz)	7.9	¼ cup fruit and juice	12.7	1 No. 303 can = about 8.8 oz (1 cup) drained fruit
Diced	No. 10 can (106 oz)	47.6	¼ cup fruit and juice	2.1	1 No. 10 can = about 66 oz (9½ cup) drained fruit
	No. 2½ can (29 oz)	13.1	¼ cup fruit and juice	7.6	1 No. 2½ can = about 18.4 oz (2-5/8 cup) drained fruit
	No. 303 can (16 oz)	7.2	¼ cup fruit and juice	13.8	1 No. 303 can = about 10.2 oz (1½ cup) drained fruit
Dehydrated regular moisture (halves)	Pound	10.7	2½ halves (about ¼ cup dry fruit)	9.4	1 lb AP = about 22 halves (2⅔ cup)
		20.3	¼ cup cooked fruit and juice	5.0	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEAS AND CARROTS Canned	No. 10 can (105 oz)	41.3	¼ cup heated vegetable	2.5	1 No. 10 can = about 66 oz (11½ cup) drained vegetable
	No. 303 can (16 oz)	6.3	¼ cup heated vegetable	15.9	
Frozen	Pound	10.9	¼ cup cooked vegetable	9.2	
PEAS, GREEN Fresh (shelled)	Pound	10.6	¼ cup cooked vegetable	9.4	1 lb in pod = 0.38 lb ready-to-cook
Canned	No. 10 can (105 oz)	44.2	¼ cup heated vegetable	2.3	1 No. 10 can = about 69 oz (11½ cup) drained vegetable
	No. 303 can (16 oz)	6.7	¼ cup heated vegetable	14.9	1 No. 303 can = about 10.5 oz (1¾ cup) drained vegetable
Frozen	Pound	10.1	¼ cup cooked vegetable	9.9	
Dehydrated Whole	Pound	25.6	¼ cup cooked vegetable	4.0	1 lb dry = about 2⅓ cup
Split	Pound	23.1	¼ cup cooked vegetable	4.4	1 lb dry = about 2¼ cup

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PEPPERS, GREEN Fresh	Pound	14.7	¼ cup raw vegetable strips	6.8	1 lb AP = 0.80 lb ready-to-cook or serve raw
		9.7	¼ cup raw chopped or diced vegetable	10.3	
		9.8	¼ cup cooked vegetable strips	10.2	1 lb AP = 0.73 lb cooked
Frozen (diced)	Pound	15.3	¼ cup raw vegetable	6.5	
		7.3	¼ cup cooked vegetable	13.7	
PICKLES (whole)	Gallon (about 87 oz drained)	55.2	¼ cup whole vegetable (about 3¾ small gherkins, 1¼ large gherkins, 1 small pickle, ½ medium pickle, ⅓ large pickle, ¼ extra large pickle)	1.9	Length of pickles: gherkins = 2-2¾ inch, small = 2¾-3½ inch, medium = 3½-4 inch, large = 4-4¾ inch, extra large = 4¾-5¼ inch
	Gallon	84.4	1/8 cup length-wise sliced vegetable	1.2	
		138.0	1/8 cup crosswise sliced vegetable	0.8	
		108.0	1/8 cup chopped vegetable	1.0	
PIMIENTOS Canned Chopped or diced	No. 10 can (102 oz)	40.7	¼ cup vegetable	2.5	1 No. 10 can = about 74 oz (10-1/8 cup) drained vegetable

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PIMIENTOS Chopped or Diced—Continued	No. 2½ can (28 oz)	11.2	¼ cup vegetable	9.0	1 No. 2½ can = about 20.5 oz (2¾ cup) drained vegetable
	Pound	6.4	¼ cup vegetable	15.7	
Whole	No. 10 can (102 oz)	38.5	¼ cup chopped vegetable	2.6	1 No. 10 can = about 71 oz (9¾ cup) drained vegetable
	No. 2½ can (28 oz)	11.0	¼ cup chopped vegetable	9.1	1 No. 2½ can = about 20.2 oz (2¾ cup) drained vegetable
	Pound	6.0	¼ cup chopped vegetable	16.6	
	7 oz can	2.8	¼ cup chopped vegetable	35.3	1 7-oz can = about 5.2 oz (2/3 cup) drained vegetable
PINEAPPLE Fresh	Pound	6.4	¼ cup raw cubed fruit	15.6	1 lb AP = 0.54 lb ready-to-serve raw
Canned Chunks	No. 10 can (106 oz)	50.0	¼ cup fruit and juice	2.0	1 No. 10 can = about 66 oz (10 cup) drained fruit
	No. 2 can (20 oz)	9.4	¼ cup fruit and juice	10.6	1 No. 2 can = about 12.4 oz (1-7/8 cup) drained fruit
	Pound	7.5	¼ cup fruit and juice	13.3	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PINEAPPLE — Continued					
Crushed	No. 10 can (107 oz)	49.3	¼ cup fruit and juice	2.1	1 No. 10 can = about 74 oz (10-7/8 cup) drained fruit
	No. 2 can (20 oz)	9.2	¼ cup fruit and juice	10.9	1 No. 2 can = about 13.8 oz (2 cup) drained fruit
	Pound	7.3	¼ cup fruit and juice	13.6	
Slices	No. 10 can (107 oz)	47.5	¼ cup fruit and juice (about 1½ slices)	2.1	1 No. 10 can = about 62 oz (9-1/3 cup or 60 slices) drained fruit
	No. 2 can (20 oz)	8.8	¼ cup fruit and juice	11.3	1 No. 2 can = about 13 oz (2 cup) drained fruit
	Pound	7.1	¼ cup fruit and juice	14.1	
Frozen (chunks)	Pound	7.3	¼ cup fruit, thawed	13.6	1 lb AP = 0.61 lb (1⅓ cup) thawed fruit, drained
PLANTAINS Fresh					
Green	Pound	7.5	¼ cup peeled, sliced, boiled fruit	13.2	1 lb = 0.62 lb ready-to-cook
Ripe	Pound	5.6	¼ cup peeled, sliced, boiled fruit	17.8	1 lb = 0.65 lb ready-to-cook
PLUMS Fresh					
Italian or purple	Pound	10.7	1½ plums (about ¼ cup fruit)	9.4	1 lb AP = 0.94 lb ready-to-cook or serve raw

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PLUMS—Continued					
Japanese or Hybrid	Pound	6.4	1 plum (3/8 cup fruit)	15.5	1 plum = about 1½ inch diameter
Canned Purple, whole	No. 10 can (108 oz)	52.3	¼ cup fruit and juice	2.0	1 No. 10 can = about 59 oz (7¼ cup) drained fruit with pits
	No. 2½ can (30 oz)	14.5	¼ cup fruit and juice	6.9	1 No. 2½ can = about 16.5 oz (2 cup) drained fruit with pits
	No. 303 can (16 oz)	7.7	¼ cup fruit and juice	12.9	1 No. 303 can = about 8.8 oz (1 cup) drained fruit with pits
POTATOES, WHITE Fresh	Pound	6.0	½ medium baked potato (about 3/8 cup vegetable)	16.7	1 lb AP = 0.81 lb baked potato with skin
		8.9	¼ cup pared, cooked diced vegetable	11.3	1 lb AP = 0.74 lb baked potato without skin
		8.4	¼ cup cooked mashed vegetable	11.9	1 lb AP = 0.81 lb ready-to-cook pared
		9.9	¼ cup cooked sliced vegetable	10.1	1 lb AP = 0.83 lb cooked diced
		5.3	¼ cup hash browns (¼ cup vegetable)	18.6	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
POTATOES — Continued					
Canned (small, whole)	No.10 can (102 oz)	43.7	¼ cup heated vegetable	2.3	1 No. 10 can = 72 oz drained vegetable
	No. 2½ can (29 oz)	10.9	¼ cup heated vegetable	9.1	1 No. 2½ can = about 17.7 oz (2¾ cup) drained vegetable
	No. 303 can (16 oz)	6.8	¼ cup heated vegetable	14.6	1 No. 303 can = about 9.3 oz (1½ cup) drained vegetable
Frozen French Fries—Regular Crinkle cut	5-lb pkg	50.5	¼ cup heated vegetable (about 5½ pieces, 3 inches long)	2.0	
	Pound	10.1	¼ cup heated vegetable	9.9	
French Fries—Shoestring Straight cut	4½-lb pkg	79.0	¼ cup heated vegetable	1.3	
	Pound	17.5	¼ cup heated vegetable	5.7	
Hash browns (diced)	Pound	7.7	¼ cup heated vegetable	13.0	
Shredded (preportioned 3 oz raw)	Pound	5.3	1 portion (about ½ cup heated vegetable)	18.8	
Skins, pieces, wedges, etc. (with skin and precooked)	Pound	10.6	¼ cup heated vegetable	9.4	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
POTATOES — Continued					
Potato rounds*	Pound	10.9	¼ cup heated vegetable, about 4½ pieces	9.2	
Whole (small, frozen)	Pound	10.1	¼ cup heated vegetable	9.9	
Dehydrated (low moisture)					
Diced	Pound	45.1	¼ cup reconstituted vegetable	2.3	1 lb dry = about 5-1/8 cup
Flakes	Pound	48.6	¼ cup reconstituted vegetable	2.1	
Granules	Pound	48.6	¼ cup reconstituted vegetable	2.1	1 lb dry = about 2¼ cup
Slices	Pound	43.5	¼ cup reconstituted vegetable	2.3	1 lb dry = about 9⅔ cup
PRUNES, DRY					
Canned					
Market pack	No. 10 can (108 oz)	46.0	¼ cup fruit and juice, about 4 prunes with juice	2.2	1 No. 10 can = about 57 oz (7-1/8 cup) drained pitted fruit
	25 oz glass	10.6	¼ cup fruit and juice	9.4	1 jar = about 13.2 oz (1-2/3 cup) drained pitted fruit
	Pound	6.8	¼ cup fruit and juice	14.7	
Dehydrated					
Regular moisture					
With pits	Pound	9.6	6 medium prunes, dry (about ¼ cup fruit)	10.4	1 lb dry = about 2-3/8 cup
		12.9	¼ cup cooked fruit and juice	7.8	

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*Shaped, shredded potatoes available under brand names such as Tater Tots or Tater Gems.

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
PRUNES, DRY – Continued					
Without pits USDA-donated (special purchase)	Pound	10.6	¼ cup dry fruit, about 6 medium prunes	9.4	1 lb dry = about 2⅔ cup
		14.7	¼ cup cooked fruit and juice	6.8	
PUMPKIN					
Fresh	Pound	4.7	¼ cup cooked mashed vegetable	21.3	1 lb AP = 0.70 lb ready-to-cook
Canned	No. 10 can (106 oz)	51.5	¼ cup heated vegetable	2.0	
	No. 2½ can (29 oz)	14.1	¼ cup heated vegetable	7.1	
	No. 303 can (16 oz)	7.7	¼ cup heated vegetable	12.9	
RADISHES					
Fresh (without tops)	Pound	12.8	¼ cup whole vegetable, about 7 small radishes	7.8	1 lb without tops = 0.94 lb ready-to-serve raw
		15.3	¼ cup raw sliced vegetable	6.6	
RAISINS					
Dehydrated Regular moisture (seedless)	Pound	12.6	¼ cup dry raisins (¼ cup fruit)	8.0	1 lb dry = about 3-1/8 cup
	Package (1.3 oz to 1.5 oz)	1.0	¼ cup dry raisins (¼ cup fruit)	100.0	
	Pound	21.4	¼ cup cooked fruit (¼ cup fruit)	4.7	

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
RASPBERRIES Fresh	Pint (11½ oz)	8.7	¼ cup raw whole fruit	11.5	1 pt AP = about 0.69 lb (2-1/8 cup) ready-to-serve raw
	Pound	12.1	¼ cup raw whole fruit	8.3	1 lb AP = about 0.96 lb ready-to-serve raw
Canned (red)	No. 10 can (103 oz)	48.0	¼ cup fruit and juice	2.1	1 No. 10 can = 53 oz drained fruit
	No. 303 can (16 oz)	7.4	¼ cup fruit and juice	13.4	1 No. 303 can = about 8.25 oz drained fruit
Frozen	Pound	7.2	¼ cup fruit and juice, thawed	13.8	
RHUBARB Fresh (without leaves)	Pound	6.2	¼ cup cooked fruit, sugar added	16.0	1 lb AP = 0.86 lb ready-to cook
Frozen	Pound	10.0	¼ cup cooked fruit, sugar added	10.0	
RUTABAGAS Fresh	Pound	8.3	¼ cup cooked cubed vegetable	12.0	1 lb AP = 0.85 lb ready-to-cook
		5.7	¼ cup cooked mashed vegetable	17.4	
SAUERKRAUT Canned	No. 10 can (99 oz)	58.6	¼ cup heated vegetable	1.8	1 No. 10 can = 60 oz drained vegetable
	No. 2½ can (27 oz)	15.0	¼ cup heated vegetable	6.3	1 No. 2½ can = 23 oz (4½ cup) drained vegetable

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SAUERKRAUT – Continued					
	No. 303 can (16 oz)	9.4	¼ cup heated vegetable	10.6	1 No. 303 can = about 13.2 oz (2-5/8 cup) drained vegetable
SPINACH					
Fresh (partly trimmed)	Pound	30.7	¼ cup raw chopped vegetable	3.3	1 lb AP = 0.88 lb ready-to-cook or serve raw
		20.4	¼ cup vegetable with dressing	4.9	
		7.6	¼ cup cooked vegetable	13.1	
Canned	No. 10 can (98 oz)	25.2	¼ cup heated vegetable	4.0	1 No. 10 can = 55 oz drained vegetable
	No. 2½ can (27 oz)	6.9	¼ cup heated vegetable	14.4	1 No. 2½ can = about 17.6 oz (2¼ cup) drained vegetable
	Pound	4.1	¼ cup heated vegetable	24.3	
	No. 303 can (15 oz)	3.8	¼ cup heated vegetable	25.9	1 No. 303 can = about 9.6 oz (1¼ cup) drained vegetable
Frozen					
Chopped	Pound	5.6	¼ cup cooked vegetable	17.6	
Whole leaf	Pound	6.5	¼ cup cooked vegetable	15.3	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SQUASH, SUMMER					
Fresh					
Yellow	Pound	7.3	¼ cup cooked vegetable cubes	13.7	1 lb AP = 0.95 lb ready-to-cook
		6.3	¼ cup cooked mashed vegetable	15.8	
		8.5	¼ cup cooked sliced vegetable	11.7	1 lb AP = 0.83 lb cooked
Zucchini	Pound	14.4	¼ cup raw vegetable sticks	7.0	1 lb AP = 0.94 lb ready-to-cook
		7.6	¼ cup cooked vegetable cubes	13.2	1 lb AP = 0.86 lb cooked
		10.2	¼ cup cooked sliced vegetable	9.8	
Canned (sliced)	No. 10 can (105 oz)	26.5	¼ cup heated vegetable	3.8	1 No. 10 can = about 61 oz (8-3/8 cup) drained vegetable
	No. 303 can (16 oz)	4.0	¼ cup heated vegetable	24.7	1 No. 303 can = about 9.2 oz (1¼ cup) drained vegetable
Frozen					
Yellow (sliced)	Pound	7.9	¼ cup cooked vegetable	12.6	
Zucchini (sliced)	Pound	7.0	¼ cup cooked vegetable	14.2	
SQUASH, WINTER					
Fresh					
Acorn	1 squash (8 oz)	2.0	½ small squash baked in skin (about ¼ cup vegetable)	50.0	1 lb AP = 0.87 lb ready-to-cook in skin
	Pound	4.7	¼ cup cooked mashed vegetable	20.9	1 lb AP = 0.70 lb ready-to-cook pared

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SQUASH, WINTER Fresh — Continued Butternut	Pound	7.5	¼ cup cooked cubed vegetable	13.3	1 lb AP = 0.84 lb ready-to-cook pared
		5.4	¼ cup cooked mashed vegetable	18.3	
Hubbard	Pound	4.4	¼ cup cooked cubed vegetable	22.8	1 lb AP = 0.64 lb ready-to-cook pared
		4.3	¼ cup cooked mashed vegetable	22.8	
Frozen (mashed)	Pound	7.0	¼ cup cooked vegetable	14.3	
STRAWBERRIES Fresh	Pint (11½ oz)	7.9	¼ cup raw whole fruit	12.7	1 pt AP = about 0.66 lb ready-to-serve raw
	Pound	10.5	¼ cup raw whole fruit	9.5	1 lb AP = 0.88 lb ready-to-serve raw
Canned	No. 10 can (102 oz)	47.8	¼ cup fruit and juice	2.1	
	No. 303 can (16 oz)	7.5	¼ cup fruit and juice	13.4	
Frozen (sliced)	Pound	7.1	¼ cup fruit and juice	14.0	
SUCCOTASH Canned	No. 10 can (105 oz)	47.3	¼ cup vegetable	2.2	1 No. 10 can = about 71 oz drained vegetable
	No. 303 can (16 oz)	7.2	¼ cup vegetable	13.9	
Frozen	Pound	9.4	¼ cup cooked vegetable	10.6	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SWEET POTATOES Fresh	Pound	5.0	½ baked potato (about ⅓ cup vegetable)	19.9	1 lb AP = 0.61 lb baked, without skin
		5.5	¼ cup cooked mashed vegetable	17.9	1 lb AP = 0.80 lb peeled ready-to-cook
		9.1	¼ cup cooked sliced vegetable	11.0	
Canned Syrup pack Cut	No. 10 can (108 oz)	45.4	¼ cup heated vegetable	2.2	1 No. 10 can = about 71 oz (12½ cup) drained vegetable
	No. 2½ can (29 oz)	12.2	¼ cup heated vegetable	8.2	1 No. 2½ can = about 18 oz (3-1/8 cup) drained vegetable
	No. 303 can (16 oz)	6.7	¼ cup heated vegetable	14.9	1 No. 303 can = about 9.7 oz (1-2/3 cup) drained vegetable
Whole	No. 10 can (108 oz)	45.9	¼ cup heated vegetable	2.2	1 No. 10 can = about 71 oz (13 cup) drained vegetable
	No. 2½ can (29 oz)	12.3	¼ cup heated vegetable	8.2	1 No. 2½ can = about 18 oz (3¼ cup) drained vegetable

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SWEET POTATOES Canned Whole — Continued	No. 303 can (16 oz)	6.8	¼ cup heated vegetable	14.7	1 No. 303 can = about 9.7 oz (1¾ cup) drained vegetable
Vacuum pack (whole)	No. 3 (17 oz)	7.9	¼ cup vegetable	12.6	
	Pound	7.4	¼ cup vegetable	13.4	
Dehydrated (low moisture) Flakes	Pound	18.5	¼ cup reconstituted vegetable	5.4	1 lb dry = about 3¾ cups
Frozen (in syrup)	Pound	7.6	¼ cup cooked vegetable	13.2	
TANGERINES Fresh	Pound	4.0	1 medium tangerine (about ½ cup fruit and juice)	25.0	1 lb AP = 0.74 lb ready-to-serve
		8.4	¼ cup fruit sections	11.9	1 medium tangerine size 176 = about 2-3/8 inch diameter
Canned (Mandarin oranges)	Pound	7.3	¼ cup fruit and juice	13.7	1 lb AP = about 0.61 lb (1½ cup) drained fruit
TOMATOES Fresh	Pound	8.9	¼ tomato (about ¼ cup vegetable)	11.2	1 lb AP = 0.99 lb ready-to-serve raw
		9.8	¼ cup sliced vegetable	10.2	
Cherry	Pound	11.8	¼ cup whole vegetable	8.5	1 lb AP = 0.97 lb stemmed tomatoes

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TOMATOES–Continued					
Canned	No. 10 can (102 oz)	48.8	¼ cup vegetable	2.1	1 No. 10 can = about 66 oz drained vegetable
		45.5	¼ cup heated vegetable	2.2	
	No. 2½ can (28 oz)	13.4	¼ cup vegetable	7.5	1 No. 2½ can = about 18.5 oz drained vegetable
		12.5	¼ cup heated vegetable	8.0	
	No. 303 can (16 oz)	7.6	¼ cup vegetable	13.1	1 No. 303 can = about 10.5 oz drained vegetable
		7.1	¼ cup heated vegetable	14.0	
TOMATO PASTE Canned	No. 10 can (111 oz)	192.0	1 tablespoon paste (¼ cup vegetable)	0.6	1 No. 10 can = 12 cup paste
	No. 2½ can (30 oz)	52.0	1 tablespoon paste (¼ cup vegetable)	2.0	1 No. 2½ can = about 3¼ cup paste
	Pound	27.6	1 tablespoon paste (¼ cup vegetable)	3.7	1 No. 10 can paste plus 3 cans water = 48 cup juice
	Picnic (12 oz)	20.7	1 tablespoon paste (¼ cup vegetable)	4.9	1 12-oz can = about 1¼ cup paste

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TOMATO PUREE Canned	No. 10 can (106 oz)	96.0	2 tablespoons puree (¼ cup vegetable)	1.1	1 No. 10 can = 12 cup puree 1 No. 10 can tomato puree plus one can water = 24 cup juice
	No. 303 can (16 oz)	14.4	2 tablespoons puree (¼ cup vegetable)	6.9	1 No. 303 can = about 1¾ cup puree
TOMATO SAUCE Canned	No. 10 can (106 oz)	50.7	¼ cup vegetable	2.0	
	Pound	7.6	¼ cup vegetable	13.1	
	No. 303 can (15 oz)	7.1	¼ cup vegetable	14.0	
TURNIP GREENS Fresh (untrimmed)	Pound	6.5	¼ cup cooked vegetable	15.4	1 lb AP = 0.70 lb ready-to-cook
Canned	No. 10 can (98 oz)	27.6	¼ cup heated vegetable	3.7	1 No. 10 can = 58 oz drained vegetable
	No. 2½ can (27 oz)	7.6	¼ cup heated vegetable	13.2	
	Pound	4.5	¼ cup heated vegetable	22.2	
	No. 303 can (15 oz)	4.2	¼ cup heated vegetable	23.7	
Frozen (chopped or whole leaf)	Pound	9.6	¼ cup cooked vegetable	10.5	

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
TURNIPS Fresh (without tops)	Pound	11.2	¼ cup raw cubed or diced vegetable	9.0	1 lb AP = 0.79 lb ready-to-cook or served raw
		8.7	¼ cup cooked cubed vegetable	11.5	1 lb AP = 0.78 lb cooked
		5.6	¼ cup cooked mashed vegetable	17.7	
VEGETABLES, MIXED Canned	No. 10 can (104 oz)	41.3	¼ cup heated vegetable	2.5	1 No. 10 can – 70 oz drained vegetable
	No. 2½ can (29 oz)	11.5	¼ cup heated vegetable	8.7	1 No. 2½ can – about 19.4 oz (3-3/8 cup) drained vegetable
	No. 303 can (16 oz)	6.3	¼ cup heated vegetable	15.8	1 No. 303 can – about 11 oz (1¾ cup) drained vegetable
Frozen	Pound	8.1	¼ cup cooked vegetable	12.3	
WATER CHESTNUTS Canned	Pound	6.7	¼ cup drained fruit	14.8	
WATERCRESS Fresh	Pound	50.5	¼ cup raw vegetable sprigs or pieces	2.0	1 lb AP = 0.92 lb ready-to-serve raw
WATERMELON Fresh	Melon (about 27 lb)	64.0	1 wedge (about ⅔ cup fruit)	1.6	
	Pound	6.4	¼ cup cubed fruit	15.5	1 lb AP = 0.57 lb ready-to-serve raw

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
JUICES					
Canned*					
Single strength (100% juice)	No.10 can (96 fl oz)	48.0	¼ cup fruit or vegetable juice	2.1	1 No. 10 can = 12 cup juice
Vegetable or fruit (such as apple, grape, grapefruit, grapefruit-orange, lemon, orange, pineapple, prune, tomato, tangerine)	No. 3 Cyl (46 fl oz,	23.0	¼ cup fruit or vegetable juice	4.4	
	Quart (32 fl oz)	16.0	¼ cup fruit or vegetable juice	6.3	
	No. 2½ can (25.5 fl oz)	12.7	¼ cup fruit or vegetable juice	7.9	
Frozen*					
Concentrated Any fruit (such as apple, grape, grapefruit, grapefruit-orange, lemon, orange, and lime) (1 part juice to 3 parts water)	32 fl oz can (about 38 oz)	64.0	1 tablespoon concentrate (1/4 cup fruit juice)	1.6	32 fl oz can reconstituted = 16 cup (128 fl oz). Reconstitute 1 part juice with not more than 3 parts water
	6 fl oz can (about 7 oz)	12.0	1 tablespoon concentrate (1/4 cup fruit juice)	8.4	6 fl oz can reconstituted = 3 cup (24 fl oz)
USDA-donated (special purchase)					
Concentrated, orange (1 part juice to 5 parts water)	32 fl oz can (about 42 oz)	96.0	2 teaspoons concentrate (1/4 cup fruit juice)	1.1	32 fl oz can reconstituted = 24 cup (192 fl oz). Reconstitute 1 part juice with not more than 5 parts water

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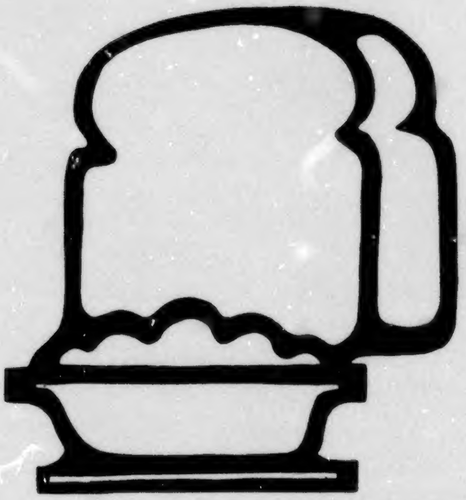
*The canned and frozen juices listed in Column 1 are usually available in the can sizes listed in Column 2.

Vegetables and Fruits

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
SOUPS, CANNED					
Condensed soups (1 part soup to 1 part water) clam chowder, minestrone, tomato, tomato with other basic components such as rice, vegetable (all vegetable), and vegetable with other basic components such as meat or poultry	No. 3 Cyl 50 oz (about 46 fl oz)	11.5	1 cup reconstituted (about ¼ cup vegetable)	8.7	Reconstitute 1 part soup with not more than 1 part water
	Pound	3.6	1 cup reconstituted (about ¼ cup vegetable)	27.2	
	Picnic (about 10.75 oz)	2.4	1 cup reconstituted (about ¼ cup vegetable)	41.2	
Ready-to-serve soups clam chowder, minestrone, tomato, tomato with other basic components such as rice, vegetable (all vegetable), and vegetable with other basic components such as meat or poultry	8 fl oz can	1.0	1 cup serving (about ¼ cup (vegetable)	100.0	



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BREAD/BREAD ALTERNATES

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U.S. Department of Agriculture

Section 3, Bread and Bread Alternates for the Child Nutrition Programs

The meal patterns in all Child Nutrition Programs contain a bread or bread alternate requirement for a breakfast, lunch, or supper in the amounts given in meal pattern charts on pages 3, 5, 6, and 7. A bread or bread alternate may also be served as one of the two components of a snack for the Child Care and Summer Food Service Programs.

Foods That Qualify as Breads and Bread Alternates

A serving of bread or bread alternate for Child Nutrition Programs is defined as:

- One slice of enriched or whole-grain bread.

- An enriched or whole-grain biscuit, roll, muffin, etc.

- A serving of cooked whole-grain or enriched cereal grains such as rice, corn grits, or bulgur.

- A serving of cooked enriched or whole-grain macaroni or noodle products. Enriched macaroni-type products with fortified protein (as specified in Appendix A to program regulations) may be counted as meeting either the bread requirement or the meat requirement of lunches, suppers, or snacks but not both in the same meal.

- A serving of whole-grain, enriched or fortified breakfast cereal—cold dry or cooked—for a *breakfast* or a *snack only.*

- A serving of coffee cake, doughnuts, formulated grain-fruit products, or sweet rolls made with whole-grain or enriched meal or flour, for a *breakfast* or a *snack only.*

- A serving of cookies for a *snack only*, when whole-grain or enriched meal or flour is the predominant ingredient by weight as specified on the label or according to the recipe. USDA recommends that cookies be served as part of a snack no more than twice a week.

- A serving of rice used in rice pudding or bread used in bread pudding for a *snack only.*

- A combination of any of the above for the appropriate meal. See chart 6 for serving sizes.

Foods That Do Not Qualify as Bread Alternates

- *Snack products*, such as hard thin pretzels, chips, and similar items made from grain, and

- *Sweet products* such as cake, except as specified above, for breakfasts and snacks where they serve the customary function of bread in breakfasts and snacks.

Criteria for Determining Acceptable Breads and Bread Alternates

The following criteria were used as a basis for crediting items to meet the bread requirement:

1. The item must be whole-grain or enriched or made from whole-grain or enriched meal or flour; or if it is a cereal, the product must be whole-grain, enriched, or fortified.

2. If it is enriched, the item must meet the U. S. Food and Drug Administration's Standards of Identity for enriched bread, macaroni and noodle products, rice, cornmeal, or corn grits.

3. The item must contain whole-grain and/or enriched flour and/or meal as the primary ingredient(s) by weight as specified on the label or according to the recipe, or must be enriched in preparation or processing and labeled "enriched." If a cereal is fortified, the label must indicate it is fortified.

4. The item must be provided in quantities specified in the regulations and in minimum serving sizes as specified in the following chart.

5 The item must serve the customary function of bread in a meal; for a lunch or supper that means it must be served as an accompaniment to, or a recognizable integral part of, the main dish (not merely as an ingredient).

Criteria for Determining the Minimum Weight of a Serving

The following criteria were used in determining the minimum weight of a serving:

1. The nutrients (primarily iron) provided by the grain content of a 25-gram (or 0.9 ounce) slice of enriched white bread or an equal amount of enriched or whole grain meal or flour.

2. Practicality of serving size.

3. Total solids content of the item. Breads and bread alternates have been divided into four groups according to moisture content. Within each group all items have approximately the same nutrient content, percent solids, and grain content per serving. The minimum weight of each group is based on the grain content of the product (exclusive of fillings, toppings, etc.)

Definition of Terms

"Bread servings" (this term appears in column 4 of the yield table) designates the contribution a given size makes toward the servings needed.

"Flour" is the product derived by finely grinding and bolting (sifting) wheat or other grains. Flour includes all grains (wheat, rye, corn, etc.).

"Meal" is the product derived by coarsely grinding corn, oats, wheat, etc.

"Cereal Grain" is the edible part of wheat, corn, rice, oats, rye, barley, etc.

"Breakfast Cereal" is any cereal served cold dry or cooked in the traditional role as a menu item for breakfast.

"Enriched" means that the product conforms to the Food and Drug Administration's Standard of Identity for levels of iron, thiamin, riboflavin, and niacin. The terms "enriched," "fortified," or similar terms indicate the addition of one or more vitamins or minerals or protein to a food, unless an applicable Federal regulation requires the use of specific words or statements. "Whole-grain" flour or meal is the product derived by grinding the entire grain. If a flour or meal does not contain the germ, it is not whole-grain.

Chart 6. Breads and Bread Alternates for Child Nutrition Programs

Group A - Breads, Rolls, and Quick Breads

1/4 serving = 7 grams (0.2 oz)
1/2 serving = 13 grams (0.5 oz)
3/4 serving = 19 grams (0.7 oz)
1 serving = 25 grams (0.9 oz)

- Bagels
- Biscuits
- Boston Brown Bread
- Breads, sliced, all types (white, rye, whole wheat, raisin, quick breads, etc.)
- Coffee Cake (breakfast and snack only)
- Corn Bread
- Croissants
- Doughnuts (breakfast and snack only)
- Egg Roll/Won Ton Wrappers
- English Muffins
- French, Vienna, or Italian Bread
- Muffins
- Pizza Crust
- Pretzels (soft)
- Rolls and Buns
- Stuffing, Bread (weights apply to the bread in the stuffing)
- Sweet Rolls and Sweet Buns (breakfast and snack only)
- Syrian Bread (Pita)

Group B - Crackers and Low-Moisture Breads

1/4 serving = 5 grams (0.2 oz)
1/2 serving = 10 grams (0.4 oz)
3/4 serving = 15 grams (0.5 oz)
1 serving = 20 grams (0.7 oz)

- Batter and/or Breading
- Bread sticks (dry)
- Chow Mein Noodles
- Graham Crackers
- Melba Toast
- Rye Wafers
- Saltine Crackers
- Soda Crackers
- Taco Shells (whole, pieces)
- Toaster Pastries (breakfast and snack only)
- Zweiback

Group C - Miscellaneous Items

1/4 serving = 8 grams (0.3 oz)
1/2 serving = 15 grams (0.5 oz)
3/4 serving = 22 grams (0.8 oz)
1 serving = 30 grams (1.1 oz)

- Dumplings
- Hush Puppies
- Meat/Meat Alternate Pie Crust
- Meat/Meat Alternate Turnover Crust
- Pancakes
- Sopaipillas
- Spoonbread
- Tortillas
- Waffles

NOTE: Cookies, Granola Bars, etc. (snack only) — 1/2 serving = 18 grams; 1 serving = 35 grams

Group D - Pastas, Cereal Grains, and Breakfast Cereals

1/4 serving = 1/8 cup cooked or 7 grams (0.2 oz) dry
1/2 serving = 1/4 cup cooked or 13 grams (0.5 oz) dry
3/4 serving = 3/8 cup cooked or 19 grams (0.7 oz) dry
1 serving = 1/2 cup cooked or 25 grams (0.9 oz) dry

- Barley
- Breakfast Cereals* cold dry or cooked (breakfast and snack only)
- Bulgur
- Corn Grits
- Lasagna Noodles
- Macaroni, Spaghetti, and assorted pasta shapes
- Noodles (egg)
- Ravioli (pasta only)
- Rice

*For the School Breakfast Program a serving is 3/4 cup or 1 ounce, whichever is less, of *cold dry* or *cooked* cereals. For the Child Care and Summer Food Service Programs a serving of *cold dry* cereal is 3/4 cup or 1 ounce, whichever is less (one-half serving is 1/3 cup or 1/2 ounce, whichever is less), and a serving of *cooked* cereal is 1/2 cup (one-half serving is 1/4 cup).

NOTE: When any cereal grain is used as an ingredient in a bread or bread alternate, use the serving size given for the appropriate bread group. For example, a serving of oatmeal bread should weigh 25 grams (Group A).

Some of the above foods, or their accompaniments, may contain more sugar, salt, and/or fat than others. Keep this in mind when considering how often to serve them.

Instructions for Using Yield Data

The data on bread and bread alternates in the following table include yield information on **common types** and **customary portion sizes** of products that you can buy on the market. All breads—commercially baked or school baked—must be whole-grain or enriched to meet the bread requirement of the breakfast or lunch programs.

The size and shape of the loaves and the thickness and number of slices per loaf will vary with the kind of bread and the bakers. The approximate weight of a serving of bread or alternate is given in the table. If the weight of a serving differs greatly from the approximate weight, you may need to make adjustments in the amount you buy.

Explanation of Table

Column 1 **Food as purchased:** In general, foods are arranged in alphabetical order. The Group number is listed for each product. For additional information on these groups, see Chart 4.

Column 2 **Purchase unit**: The purchase unit for bread and bread alternates is 1 pound or, for cold dry cereals, a package. You can use data for one purchase unit to determine how much of the item you need for the number of people you serve. For breads purchased singly or by the dozen, refer to chart for serving sizes.

Column 3 **Servings per purchase unit:** This column shows the number of servings of a given size obtained from each purchase unit. Numbers in this column are often rounded *down* in order to help ensure enough food for the number of servings.

Column 4 **Serving size or portion and contribution to the meal pattern**: The size of a serving is expressed in volume and/or weight. The number of bread servings provided is given in parentheses for sliced bread and crackers. Note that the serving sizes of cereals and cereal grains are different for each program.

School Breakfast Programs: 3/4 cup or 1 ounce (whichever is less) of any cold dry or cooked breakfast cereal counts as one bread serving.

National School Lunch Program: 1/2 cup of any cooked cereal grain counts as one bread serving.

Child Care Food Program and Summer Food Service Program: 1/2 cup of cooked breakfast cereal or cereal grain counts as one bread serving; 1/4 cup of cooked breakfast cereal or cereal grain counts as one-half bread serving. Also, for breakfast or snacks, 3/4 cup or 1 ounce (whichever is less) of cold dry breakfast cereal counts as one bread serving; 1/3 cup or 1/2 ounce (whichever is less) of cold dry breakfast cereal counts as one-half bread serving.

Column 5 **Purchase units for 100 servings:** This column shows the number of purchase units needed for 100 servings. Numbers in this column are generally rounded *up* in order to help ensure enough food for the number of servings.

Column 6 **Additional Yield Information**: This column gives other information to help you calculate the amount of food you need to prepare meals. For example, the number of cups you will get from a pound of food as purchased is shown for many bread alternates.

Bread and Bread Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
BREAD (Group A) Sliced Bread* (All Types - white, rye, whole wheat, raisin, quick bread, etc.)	Pound	32.0	½ slice (13 g or 0.5 oz) (½ bread serving)	3.2	
		16.0	1 slice (25 g or 0.9 oz) (1 bread serving)	6.3	
BREAD STICKS (Group B)	Pound	45.3	2 sticks (10 g or 0.4 oz) (½ bread serving)	2.2	
		22.6	4 sticks (20 g or 0.7 oz) (1 bread serving)	4.5	7¾ inches long, ¾ inch diameter
CEREALS (Group D)					
BARLEY	Pound	42.0	¼ cup cooked	2.4	1 lb dry = about 2-1/3 cup
		21.2	½ cup cooked	4.8	
		14.1	¾ cup cooked	7.1	
BULGUR	Pound	39.2	¼ cup cooked	2.6	1 lb dry = about 3 cup
		19.6	½ cup cooked	5.1	
		13.0	¾ cup cooked	7.7	
CORNMEAL (yellow) Degerminated	Pound	50.7	¼ cup cooked	2.0	1 lb dry = about 3 cup
		25.3	½ cup cooked	4.0	
		16.9	¾ cup cooked	6.0	

*The number of slices per purchase unit does not include the end slices.

Bread and Bread Alternates

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
CORNMEAL —Continued					
Stone ground	Pound	57.3	¼ cup cooked	1.8	1 lb dry = about 3-3/8 cup
		28.6	½ cup cooked	3.5	
		19.1	¾ cup cooked	5.3	
CORN GRITS Instant	Pound	54.7	¼ cup cooked	1.9	1 lb dry = about 5-3/4 cup
		27.4	½ cup cooked	3.7	
		18.2	¾ cup cooked	5.5	
Quick	Pound	45.0	¼ cup cooked	2.3	1 lb dry = about 2-3/4 cup
		22.4	½ cup cooked	4.5	
		15.0	¾ cup cooked	6.7	
Regular	Pound	50.3	¼ cup cooked	2.0	1 lb dry = about 2-3/4 cup
		25.1	½ cup cooked	4.0	
		16.7	¾ cup cooked	6.0	
FARINA Instant	Pound	45.5	¼ cup cooked	2.2	1 lb dry = about 2-3/8 cup
		22.7	½ cup cooked	4.4	
		15.1	¾ cup cooked	6.6	
Quick	Pound	58.1	¼ cup cooked	1.8	1 lb dry = about 2-1/2 cup
		29.0	½ cup cooked	3.5	
		19.3	¾ cup cooked	5.2	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
FARINA—Continued					
Regular	Pound	58.9	¼ cup cooked	1.7	1 lb dry = about 2-1/2 cup
		29.4	½ cup cooked	3.4	
		19.6	¾ cup cooked	5.1	
READY-TO-EAT (wheat, corn, rice, oats, granola)	Package	1.0	¾ cup or 1 ounce	100.0	Package contents vary with the cereal—flakes, puffs, biscuits, shreds, granules, etc.
ROLLED OATS					
Instant	Pound	46.9	¼ cup cooked	2.2	1 lb dry = about 5-2/3 cup
		23.4	½ cup cooked	4.3	
		15.6	¾ cup cooked	6.4	
Quick	Pound	47.6	¼ cup cooked	2.1	1 lb dry = about 6-1/4 cup
		23.8	½ cup cooked	4.3	
		15.8	¾ cup cooked	6.3	
Regular	Pound	45.4	¼ cup cooked	2.2	1 lb dry = about 6 cup
		22.7	½ cup cooked	4.4	
		15.1	¾ cup cooked	6.6	
ROLLED WHEAT	Pound	44.1	¼ cup cooked	2.3	1 lb dry = about 4-3/4 cup
		22.0	½ cup cooked	4.6	

Bread and Bread Alternates — [illegible]

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
WHEAT, CEREAL Instant	Pound	49.1	¼ cup cooked	2.1	1 lb dry = about 4 cup
		24.5	½ cup cooked	4.1	
Regular	Pound	49.2	¼ cup cooked	2.1	1 lb dry = about 3-1/3 cup
		24.6	½ cup cooked	4.1	
CHOW MEIN NOODLES (Group B)	Pound	34.8	¼ cup serving (11 g or 0.4 oz)	2.9	
		17.4	½ cup serving (22 g or 0.8 oz)	5.8	
CRACKERS (Group B)					
GRAHAM	Pound	32.4	2 crackers (14 g or 0.5 oz) (½ bread serving)	3.1	
		21.3	3 crackers (21 g or 0.7 oz) (1 bread serving)	4.7	1 lb AP = about 64 crackers
SALTINES	Pound	41.2	4 crackers (11 g or 0.4 oz) (½ bread serving)	2.5	
		20.6	8 crackers (23 g or 0.8 oz) (1 bread serving)	4.9	7 crackers minimum
SODA	Pound	45.0	2 crackers (10 g or 0.4 oz) (½ bread serving)	2.3	
		22.5	4 crackers (20 g or 0.7 oz) (1 bread serving)	4.5	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
MELBA TOAST (Group B)	Pound	37.8	3 pieces (12 g or 0.4 oz) (½ bread serving)	2.7	
		22.2	5 pieces (20 g or 0.7 oz) (1 bread serving)	4.5	
PASTA (Group D)					
MACARONI Elbow Regular	Pound	39.0	¼ cup cooked	2.6	1 lb dry = about 3-1/2 cup
		19.5	½ cup cooked	5.2	
Protein – fortified	Pound	39.6	¼ cup cooked	2.6	1 lb dry = about 3-1/2 cup
		19.8	½ cup cooked	5.1	
Spiral	Pound	33.8	¼ cup cooked	3.0	1 lb dry = about 5-3/8 cup
		16.9	½ cup cooked	6.0	
NOODLES Egg (medium)	Pound	40.3	¼ cup cooked	2.5	1 lb dry = about 11-7/8 cup
		20.1	½ cup cooked	5.0	
Lasagna	Pound	36.4	¼ cup cooked	2.8	1 lb dry = about 19 pieces
		18.2	½ cup cooked	5.5	
SPAGHETTI Regular	Pound	33.0	¼ cup cooked	3.1	1 lb dry = about 6-3/8 cup
		16.5	½ cup cooked	6.1	

Bread and Bread Alternates [illegible]

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
Spaghetti—Continued					
Protein-fortified	Pound	47.3	¼ cup cooked	2.2	1 lb dry = about 3-3/4 cup
		23.6	½ cup cooked	4.3	
RICE (Group D)					
Brown (long grain)	Pound	39.1	¼ cup cooked	2.6	
	Pound	19.5	½ cup cooked	5.2	1 lb dry = about 2-1/2 cup
White					
Long grain					
Parboiled	Pound	36.0	¼ cup cooked	2.8	
	Pound	18.0	½ cup cooked	5.6	1 lb dry = about 2-1/2 cup
Precooked	Pound	47.3	¼ cup prepared with boiling water	2.2	
	Pound	23.6	½ cup prepared with boiling water	4.3	1 lb dry = about 4-1/2 cup
	Pound	30.7	¼ cup simmered	3.3	
	Pound	15.3	½ cup simmered	6.6	1 lb dry = about 7 cup
Regular	Pound	35.9	¼ cup cooked	2.8	
	Pound	17.9	½ cup cooked	5.6	1 lb dry = about 2-1/3 cup
Medium (regular)	Pound	36.1	¼ cup cooked	2.8	
	Pound	18.0	½ cup cooked	5.6	1 lb dry = about 2-1/4 cup

Bread, and Bread Alternates enriched or whole-grain

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
RICE—continued					
Short (regular)	Pound	31.6	¼ cup cooked	3.2	
	Pound	15.8	½ cup cooked	6.4	1 lb dry = about 2-1/4 cup
RYE WAFERS (Group B)	Pound	36.0	2 wafers (13 g or 0.5 oz) (½ bread serving)	2.8	
		18.0	4 wafers (25 g or 0.9 oz) (1 bread serving)	5.6	
TACO SHELLS (Group B)	Dozen	12.0	1 taco shell (10 g or 0.4 oz) (½ bread serving)	8.4	
		6.0	2 taco shells (20 g or 0.8 oz) (1 bread serving)	16.7	
ZWIEBACK (Group B)	Pound	32.4	2 pieces (14 g or 0.5 oz) (½ bread serving)	3.1	
		21.3	3 pieces (21 g or 0.7 oz) (1 bread serving)	4.7	

4

Milk

130 Fluid Milk for the Child Nutrition Programs
131 Yield Data Table for Fluid Milk

U.S. Department of Agriculture

Fluid Milk for the Child Nutrition Programs

Regulations for Child Nutrition Programs require that, to be eligible for cash reimbursement, each breakfast, lunch, or supper must contain fluid milk. Fluid milk is one of the options for a snack in the Child Care Food Program and the Summer Food Service Program.

In a lunch or a supper the fluid milk must be served as a beverage. For a breakfast or a snack, you may serve the fluid milk as a beverage, on cereal, or both.

In the School Breakfast Program, the Child Care Food Program, and the Summer Food Service Program, fluid milk includes whole milk, lowfat milk, skim milk, cultured buttermilk, or flavored milk made from these types of fluid milk which meet State or local standards.

In the School Lunch Program at least one of the following types of milk must be offered: unflavored fluid lowfat or skim milk, or buttermilk. You may also offer other fluid milks such as whole milk or any flavored milk. You are *not required* to offer a *choice* of milk if you serve unflavored lowfat or skim milk, or buttermilk.

Fluid milk means pasteurized fluid unflavored or flavored skim milk, lowfat milk or whole milk or cultured buttermilk, all of which meet State and local standards for such milk. The milk should contain vitamins A and D at levels consistent with State and local standards.

Milk

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion and contribution to the meal requirement	5. Purchase units for 100 servings	6. Additional yield information
MILK, FLUID lowfat milk, skim milk, buttermilk, whole milk (unflavored or flavored)	Gallon	16.0	½ pint milk (1 cup milk)	6.3	
		21.3	¾ cup milk	4.7	
		32.0	½ cup milk	3.2	
	Quart	4.0	½ pint milk (1 cup milk)	25.0	
		5.3	¾ cup milk	18.8	
		8.0	½ cup milk	12.5	
	½ pint (8 fl oz)	1.0	½ pint milk	100.0	
	¾ cup (6 fl oz)	1.0	¾ cup milk	100.0	
	½ cup (4 fl oz)	1.0	½ cup milk	100.0	

5

OTHER FOODS

134 Description of Other Foods
135 Yield Data Table for Other Foods

U.S. Department of Agriculture

Description of Other Foods

The foods in this section do not meet the requirement for any component in the meal patterns. They are included for your convenience since they are foods frequently used as condiments and seasonings, to round out the meal, to improve acceptability, and to satisfy the children's appetites.

These foods supply calories which help to meet the energy needs of growing boys and girls. They also contribute varying amounts of protein, vitamins, and minerals essential to good nutrition. However, many of these foods are high in salt, sugar, or fat. For that reason you may want to consider carefully how often and in what amounts you use them.

The section does not include yields for all of the "other foods" you need in preparing meals. Flour and sugar, for example, are not included since they are never served alone. When purchase units for 100 servings of a food seem inappropriate, such as 100 cups of mustard, column 5 is left blank.

Foods are designated as "USDA-donated (special purchase)" or "Market Pack" in Column 1. USDA-donated (special purchase) foods are not normally available on the market. Market Pack foods are commercially available.

Refer to the Introduction Section for instructions for using Yield Data Tables.

136

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
BUTTER, MARGARINE					
BUTTER	Pound	96.0	1 teaspoon butter	1.1	1 pound = 2 cup
MARGARINE	Pound	96.0	1 teaspoon margarine	1.1	
CATSUP, CHILI SAUCE, MUSTARD, PICKLE RELISH					
CATSUP, TOMATO	No. 10 can (115 oz)	11.4	1 cup catsup	—	1 can = about 11½ cup
		183.0	1 tablespoon catsup	.6	
	20 oz bottle	32.0	1 tablespoon catsup	3.2	
	Pound	1.6	1 cup catsup	—	
CHILI SAUCE	No. 10 can (113 oz)	12.9	1 cup sauce	—	
	19 oz bottle	2.2	1 cup sauce	—	
	Pound	1.8	1 cup sauce	—	
MUSTARD, PREPARED	1 gallon (about 142 oz)	16.0	1 cup mustard	—	
		256.0	1 tablespoon mustard	.4	
	1 quart (about 35 ounces)	64.0	1 tablespoon mustard	1.6	
	Pound	1.8	1 cup mustard	—	
PICKLE RELISH	1 gallon (about 147 oz)	16.0	1 cup relish	—	1 gal = about 58 oz drained (about 8 cups)
		256.0	1 tablespoon relish	.4	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
PICKLE RELISH – Continued					
	1 quart (about 35 ounces)	64.0	1 tablespoon relish	1.6	
	Pound	1.8	1 cup relish	—	
COCONUT					
Fresh (in shell)	Pound	2.7	1 cup shredded or grated coconut	—	1 lb in shell = about 0.48 lb (2¾ cup) ready-to-serve
Dried					
Flakes	Pound	5.1	1 cup coconut	—	
Shredded	Pound	4.9	1 cup coconut	—	
Frozen (shredded)	Pound	5.8	1 cup coconut	—	
DAIRY PRODUCTS					
CREAM					
Light	Quart	64.0	1 tablespoon cream	1.6	
Heavy (whipping)	Quart	128.0	1 tablespoon, whipped cream	.8	Volume doubles when whipped
	Pint	64.0	1 tablespoon whipped cream	1.6	
CREAM CHEESE	Pound	15.6	2 tablespoon cheese	6.4	
ICE CREAM, ICE MILK, SHERBET					
Brick	Quart	8.0	1 slice	12.5	
Bulk					
Hardened or	Gallon	32.0	½ cup	3.2	
Soft serve	Gallon	64.0	¼ cup	1.6	

Other Foods

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
MILK, DRY					
Whole (regular)	Pound	14.2	1 cup reconstituted milk	—	4.5 oz (1 cup) dry + 3-1/2 cup water = about 1 qt fluid whole milk
	Pound	3.5	1 cup dry milk	—	
Nonfat					
Instant	Pound	20.0	1 cup reconstituted milk	—	3.2 oz (1-1/3 cup) dry + 3-3/4 to 4 cup water = about 1 qt fluid skim milk
	Pound	6.6	1 cup dry milk		
Non-instant USDA-donated (special purchase)	Pound	20.0	1 cup reconstituted milk	—	3.2 oz (3/4 cup) dry + 3-3/4 cup water = about 1 qt fluid skim milk
	Pound	3.7	1 cup dry milk	—	
Evaporated	No. 10 can (97 fl oz)	12.0	1 cup concentrated milk	—	Dilute 1 part evaporated milk with 1 part water
	13 fl oz can	1.6	1 cup concentrated milk	—	
YOGURT	8 fl oz cup	1.0	1 container yogurt	100.0	
HOMINY Canned	No. 10 can (105 oz)	46.9	¼ cup hominy	2.2	1 can = about 68 oz drained
	No. 2½ can (29 oz)	12.9	¼ cup hominy	7.8	1 can = about 19 oz drained
	No. 303 can (16 oz)	7.1	¼ cup hominy	14.0	1 can = about 10 oz drained

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
NUTS					
ALMONDS (shelled, whole, with skins)	Pound	3.1	1 cup nuts	—	1 lb in shell = about 0.49 lb (1½ cup) nuts
CASHEWS (shelled, whole)	Pound	3.3	1 cup nuts	—	
MACADAMIA (shelled, whole)	Pound	3.2	1 cup nuts	—	1 lb in shell = about 0.35 lb (1-1/8 cup) nuts
PEANUT GRANULES	No. 10 can (56 oz)	11.9	1 cup nuts	—	
	Pound	3.4	1 cup nuts	—	
PEANUTS, ROASTED (shelled)	No. 10 can (64 oz)	11.9	1 cup whole nuts	—	
	Pound	2.9	1 cup whole nuts	—	
	Pound	3.1	1 cup nut halves	—	1 lb in shell = about 0.66 lb (2 cup) nuts
PECANS (shelled)	Pound	4.2	1 cup nut halves	—	1 lb in shell = about 0.49 lb (2 cup) nuts
WALNUTS					
Black (shelled)	Pound	3.5	1 cup chopped nuts	—	1 lb in shell = about 0.22 lb (¾ cup) nuts
English or Persian (shelled)	Pound	4.5	1 cup nut halves	—	1 lb in shell = about 0.46 lb (2 cup) halves
PRESERVES AND SYRUPS					
HONEY, STRAINED	Pound	1.4	1 cup honey	—	
		22.3	1 tablespoon honey	4.5	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
JAMS, JELLIES, and PRESERVES	Gallon	16.0	1 cup jam	—	
		256.0	1 tablespoon jelly	.4	
	Quart	4.0	1 cup jam	—	
		54.0	1 tablespoon jam	1.6	
	Pound	1.4	1 cup jam	—	
		22.6	1 tablespoon jam	4.5	
SYRUPS Cane, Maple, and Molasses	Gallon (about 183 oz)	16.0	1 cup syrup	—	
		128.0	2 tablespoon syrup	.8	
	Quart	4.0	1 cup syrup	—	
		32.0	2 tablespoon syrup	3.2	
SALAD DRESSINGS					
FRENCH, MAYONNAISE, MAYONNAISE-TYPE	Gallon	16.0	1 cup dressing	—	
		256.0	1 tablespoon dressing	.4	
	Quart	4.0	1 cup dressing		
		64.0	1 tablespoon dressing	1.6	
SNACK CHIPS AND STICKS					
CORN CHIPS	Pound	20.0	¾ ounce chips (about ½ cup)	5.0	
POTATO CHIPS	Pound	32.0	½ ounce chips (about ½ cup)	3.2	
POTATO STICKS	Pound	32.0	½ ounce sticks (about 3/8 cup)	3.2	

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
VEGETABLES FOR SEASONING, DRY					
CELERY (flakes)	Ounce	1.3	1 cup dry flakes	—	For flavor, use 1 oz dry in place of 11.3 oz (2⅔ cup) fresh chopped celery
	Pound	21.6	1 cup dry flakes	—	
CHIVES (freeze-dried flakes)	Ounce	2.8	1 cup flakes	—	For flavor, use 1 oz dry in place of 14.7 oz (8⅔ cup) fresh chopped chives
	Pound	46.2	1 cup flakes	—	
GARLIC (minced)	Ounce	2.6	1 tablespoon garlic	—	For flavor, use ¼ tsp dry in place of 2 cloves fresh minced garlic
	Pound	42.0	1 tablespoon garlic	—	
MIXED VEGETABLES (flakes)	Ounce	7.2	1 tablespoon flakes	—	
	Pound	7.8	1 cup flakes	—	
ONIONS					
Chopped	Ounce	6.0	1 tablespoon onions	—	For flavor, use 1 oz dry in place of about 9.1 oz (1½ cup) fresh chopped onion
	Pound	5.2	1 cup onions	—	
Minced	Ounce	6.0	1 tablespoon onions	—	
	Pound	4.5	1 cup onions	—	
Flakes	Ounce	6.0	1 tablespoon flakes	—	
	Pound	7.6	1 cup flakes	—	

Other Foods

1. Food as purchased	2. Purchase unit	3. Servings per purchase unit	4. Serving size or portion	5. Purchase units for 100 servings	6. Additional yield information
PARSLEY (flakes)	Ounce	21.8	1 tablespoon flakes	—	For flavor, use 1 oz dry in place of about 2.9 oz (4 cup) fresh chopped parsley
	Pound	20.6	1 cup flakes	—	
PEPPER, GREEN (flakes)	Ounce	11.3	1 tablespoon flakes	—	For flavor, use 1 oz dry in place of about 8.8 oz (1⅔ cup) fresh chopped green pepper
	Pound	11.3	1 cup flakes	—	
YEAST					
ACTIVE DRY	Pound	3.1	1 cup yeast	—	1 package (¼ oz) = about 1 tablespoon
COMPRESSED	Pound	25.2	1 cake yeast	—	1 cake (5/8 oz) = 1 package (¼ oz) active dry yeast

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